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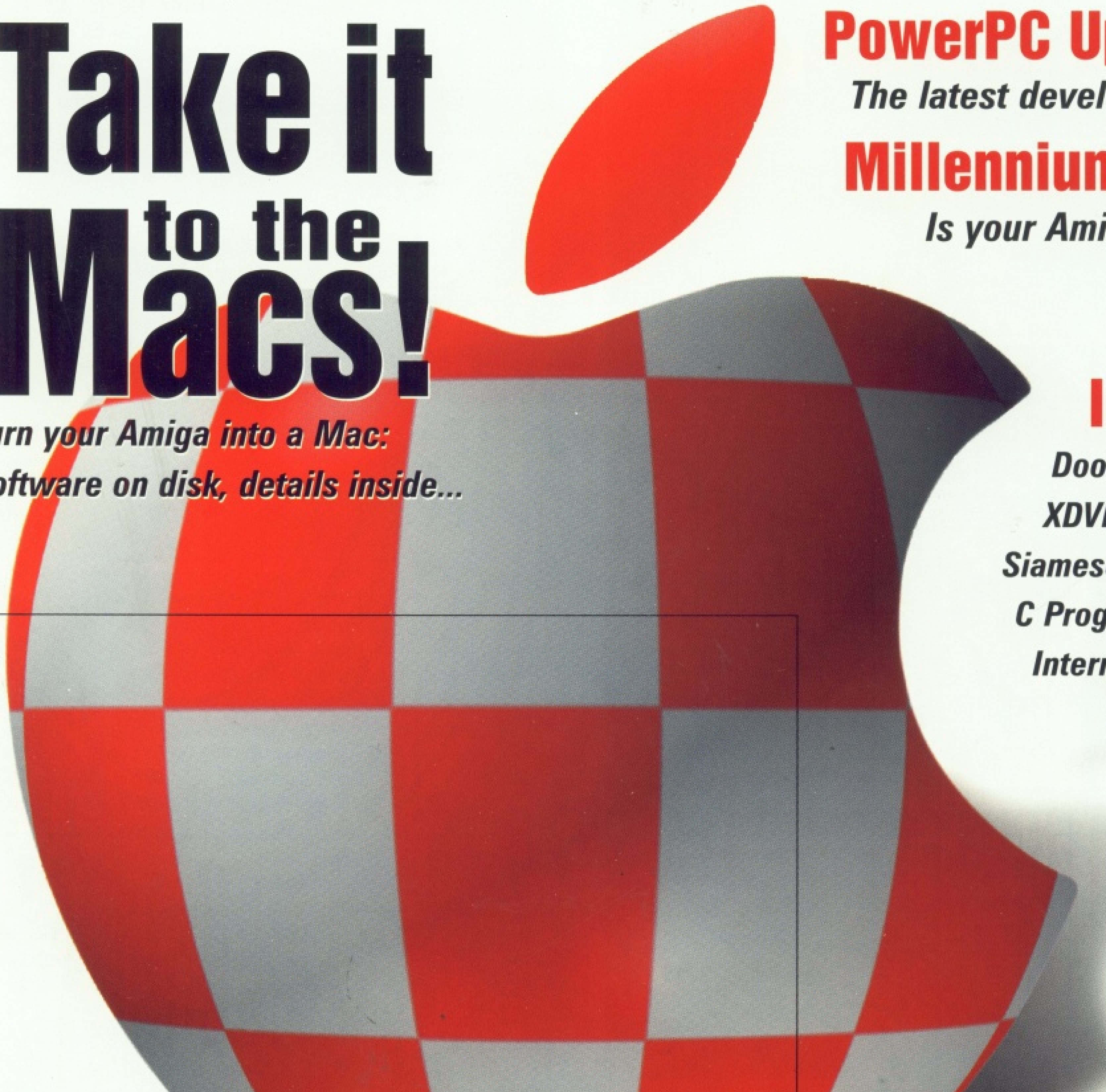
CU

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CU AMIGA MAGAZINE

APRIL 1998 • CONTENTS

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COVER DISK AND CD-ROM DUPLICATION BY DISKXPRESS

ABC July-December 1997 24,358

emap. images

Editorial



What's all this then? CU Amiga advocating Apple Macs... have we gone mad? Don't worry, it's not some ploy to get everyone converted from Amiga to Mac, simply a great opportunity to exploit the hard work of those on lesser platforms and marry it with all the best points of the Amiga. It works a lot better than you'd think too! Also this month we investigate the ominous Millennium Bug and ask what it holds for us. There's news on all the latest PowerPC developments for a brighter view of the future. Oh, and by the way, you're reading what is now the World's best selling Amiga mag. Thanks for choosing us, it's appreciated!

Tony Horgan, Editor

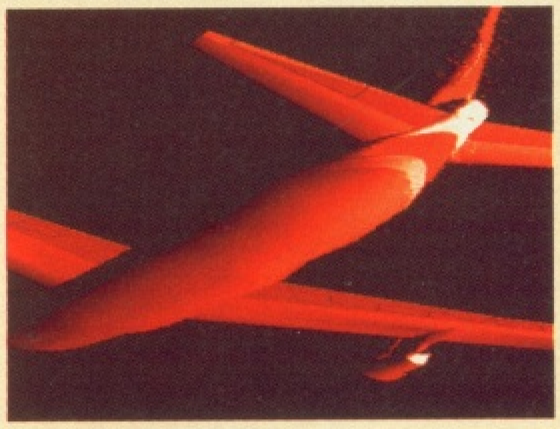
Feature



This has to be one of the most asked for features. We always hear about how good the Amiga is at emulating the Apple Macintosh, and here you can see it in action.
We explain how you can do it yourself, and the pitfalls and problems you are likely to face.

Find out what is good – and what is bad – about running Macintosh OS on your Amiga.

Feature



Read the newspapers and you'll have heard numerous horror stories about how the so called Millenium bug will cause a wave of disasters at the turn of the century.

Will 'planes fall out of the sky? Hospitals grind to a halt and banks lose all your money? Most importantly, will your Amiga burst into flames or be the only computer to survive this digital eschaton? Read our comprehensive guide to the whole issue and find out what it's really all about.

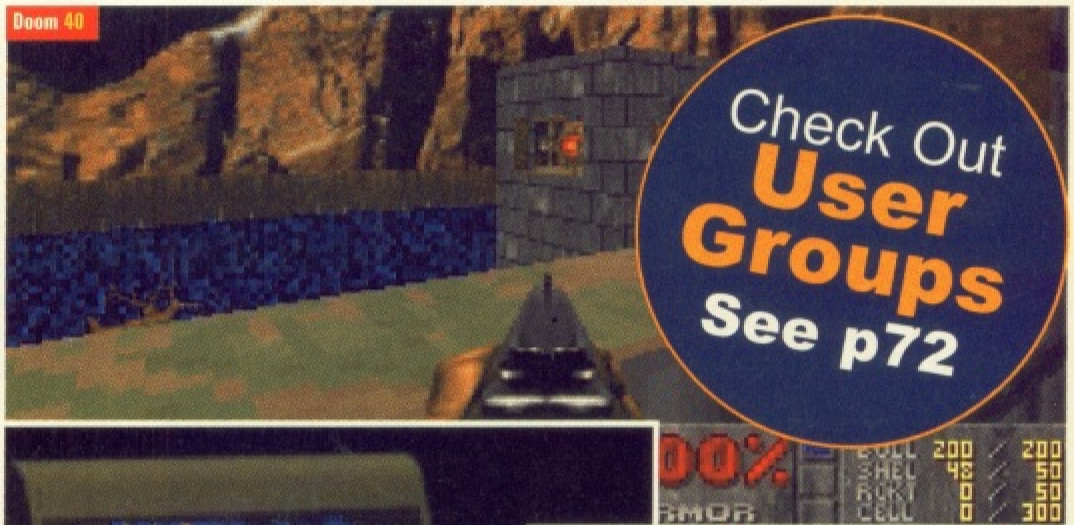
Feature



The decision has been made – PPC and 68K are the next CPU for the Amiga. Turn here to find out what it all means and what the implications are for the future.



Back in our August issue we announced a competition in conjunction with phase 5, offering 5 PPC cards for the most promising coders. We announce the winners at last!



Doom 40


Siamese 54


Screen Scene 38


Art Gallery 70



ST Fax 60

Cover disks



14 Super CD-ROM 21

You'll find ShapeShifter on here just as with the floppies, but we have also supplied you with a hardfile ready to use from the CD which contains a wealth of Macintosh software and demos for you to try out.

All the normal range of Amiga games, utilities, demos, pics, music and more can also be found on CUCD21, an essential resource that Amiga user can't afford to be without.

18 ShapeShifter

This month on the disks we have provided a ShapeShifter installation which will allow you to try out a Mac system and explore Mac software. Please note that for legal reasons we cannot supply the necessary ROM file, but we tell you how to get it.



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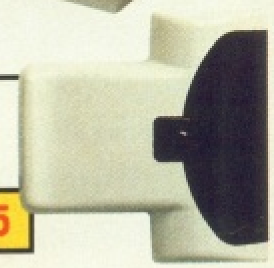
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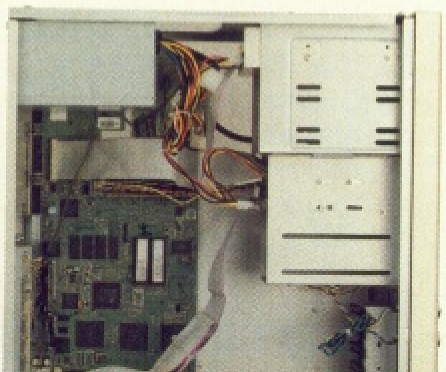
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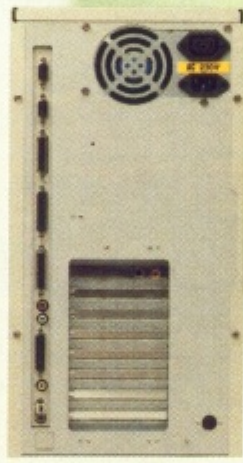
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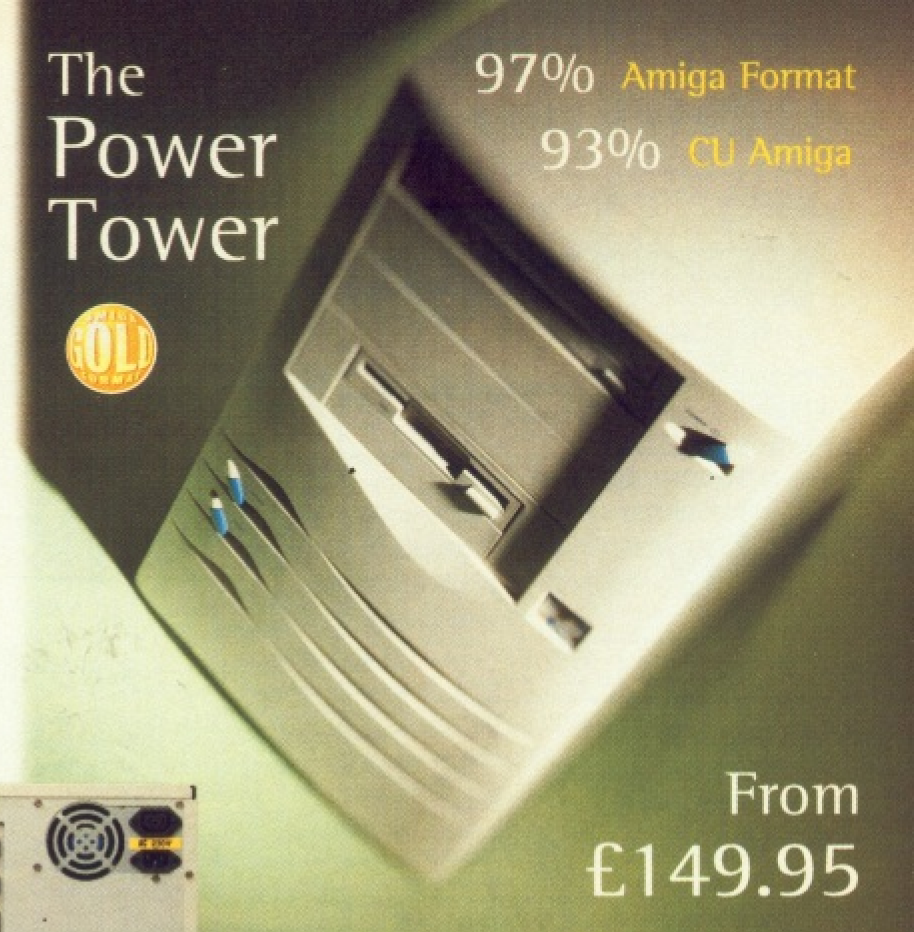
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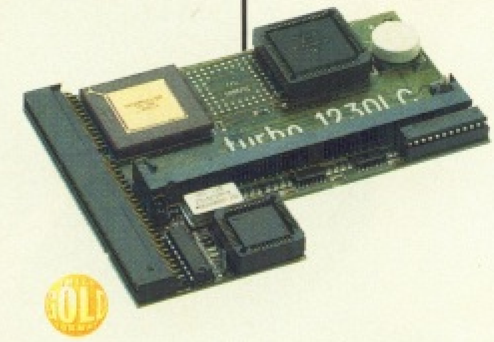
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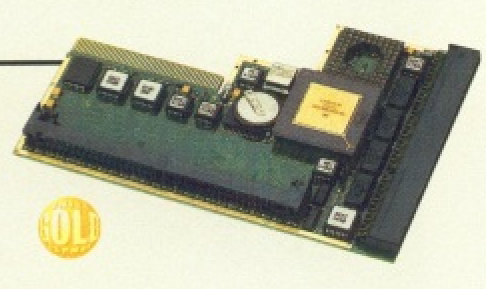
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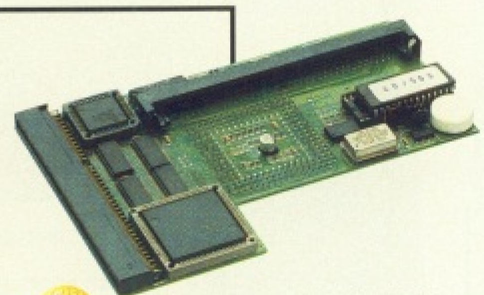
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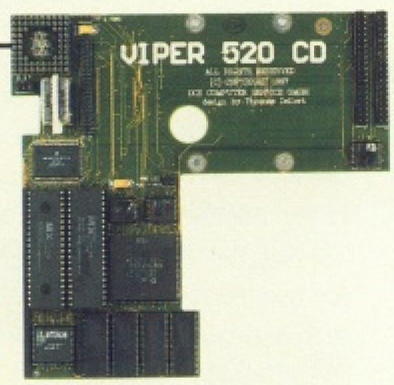
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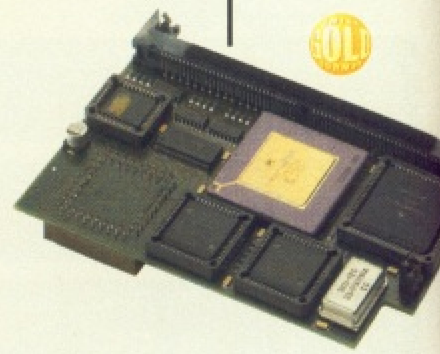
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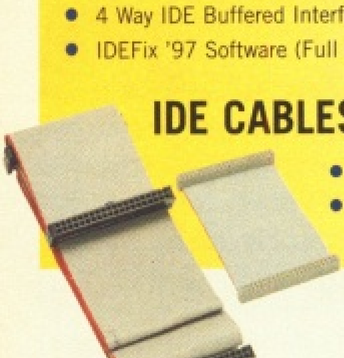
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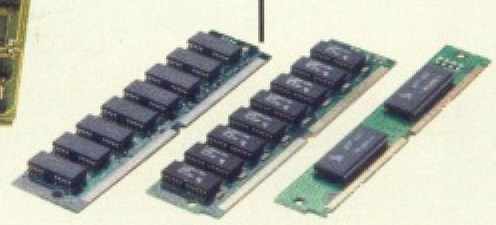


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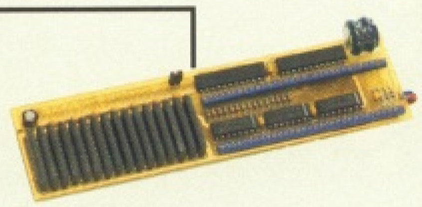


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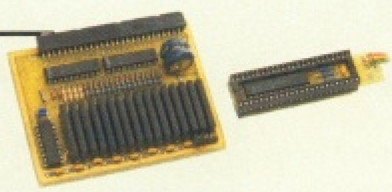
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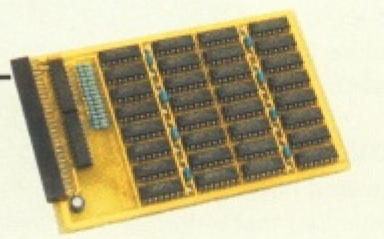
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- Works with all A500's WB1.3 and above

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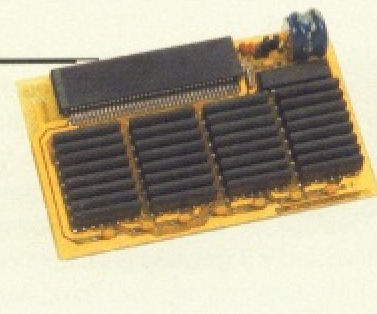
MINI-MEGA CHIP



- 1MB CHIP RAM

1MB CHIP RAM £99.95

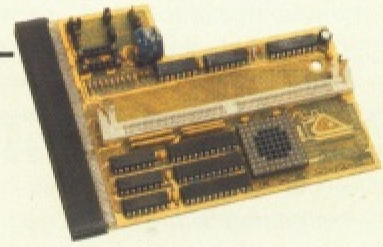
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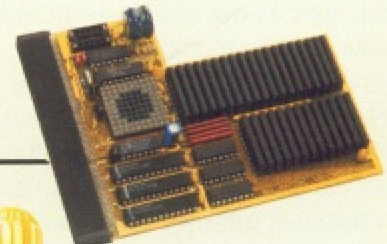
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News

phase 5 seek OS license

phase 5 to produce Amiga clone?

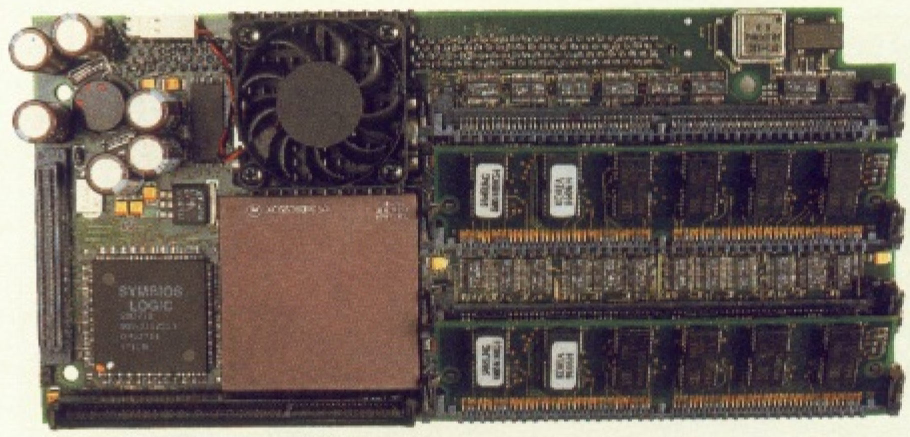
Phase 5 are rumoured to be developing their own Amiga clone far more powerful than any previous model. While phase 5 general manager Wolf Deitrich declined to confirm or deny the rumour, he commented "we will use the logical building blocks from the PowerUP development for integration into future products. These products, which are to be announced soon, will bring new life and excitement to the Amiga market".

The German hardware company behind the PowerUP PowerPC cards, have confirmed that they have agreed conditions with Amiga International for an Amiga OS 3.1 license and should be signing the contract in the next few days. This suggests a more co-operative approach to the development of the Amiga platform, as opposed to the percieved push towards their own A\Box system. Their willingness to advance the official Amiga line has also been indicated with their recent offer to lend their expertise in multiprocessing design, retargettable graphics and other elements of future OS design to ICOA (International Council of Open Amiga), the unnofficial Amiga advisory organisation.

Some criticism has been levelled at phase 5 in recent months that they were more interested in pushing the Amiga market into an easy upgrade path to their own proprietary A\Box operating system to the detriment of the Amiga itself, and it seems likely that this move has been in part to counteract that criticism. A spokesman for the German company said rather cryptically "...we are greatly expanding the functionality of our PowerUP system software to fulfil the needs as a major stepping stone towards a revised, enhanced, and eventually also PPC native AmigaOS".

PCI Possibilities

An important indicator of the possibilities can be drawn from a close examination of the development of the Permedia 2-based graphics card phase 5 are developing as a PowerUP add-on. 3dLabs supply the Permedia 2 chip in a form designed for a PCI bus, which means that connecting one to the expansion bus on the PowerUP will mean devising a PowerUP to PCI bridge. A motherboard based on this technology would offer the combined PowerPC and 680x0 processing solution of the PowerUP cards, along with 3D graphics and PCI card capability. Bearing in mind the often overlooked fact that the PowerUP technology supports multiple CPUs, this would hint at the possibility of incredibly fast machines with several PPC 603 or 604 CPUs working in parallel. Such a system would bear broad similarities to the CHRP platform, and would similarly benefit from the cost advantages that accrue to those simple modular designs. Basically it could deliver a lot of processing power at a low price. The idea of an Amiga with advanced 3D graphics, capable of accepting industry standard PCI cards and running faster than any Pentium system we're likely to see is certainly an appealing one, and looks a very likely possibility for a future follow up to the PowerUP project.



PowerUP powers up

In related news, phase 5 have announced that reductions in price of the PowerPC chips have allowed them to offer higher specifications for the same price. From now on, CyberstormPPC 604 cards will be supplied in a 223MHz form to replace the current 200MHz top specification model, while the price will actually drop slightly to £599 without a 680x0 companion CPU. At the lower end, the first batch of BlizzardPPC cards for the A1200 have just gone into production and will have shipped by the time you read this.

The BlizzardPPC cards will be pushed aggressively in the wake of the announcement last month by Amiga Inc that 680x0 plus PowerPC parallel CPUs were the next step in Amiga development. Unit prices for the 68060 remain high, but volume availability of high quality recycled 68040s has enabled the lower end cards to be released substantially more cheaply than originally thought. Final pricing will depend somewhat on current exchange rates, and looks set to be a little higher than the target prices we reported last month.

The A1200 variant of the PowerUP card will ship with an AGA version of the CyberGraphX system, allowing the supplied CyberGraphX-only PPC software to be used without a graphics card. Current indications are that contrary to earlier expectations, all cards may be compatible with standard desktop cases, not requiring a tower conversion.

Spring Blizzards

The first version of the BlizzardPPC cards to be released will be the 160MHz and 200MHz versions. Long lead times on the 250MHz PPC 603e CPU components will mean that the higher end cards are likely to be delayed a little further, but phase 5 will be happy to push the lower end cards. Even at 160MHz, the PPC603e chip used on these cards will run several times faster than any 680x0 based Amiga, and the price point will make it a tempting product. Fitted with a 68040 25MHz companion processor, the board will retail for the kind of price a similar '040 board would have cost only a year ago. We should have a full review of the first BlizzardPPC next month.

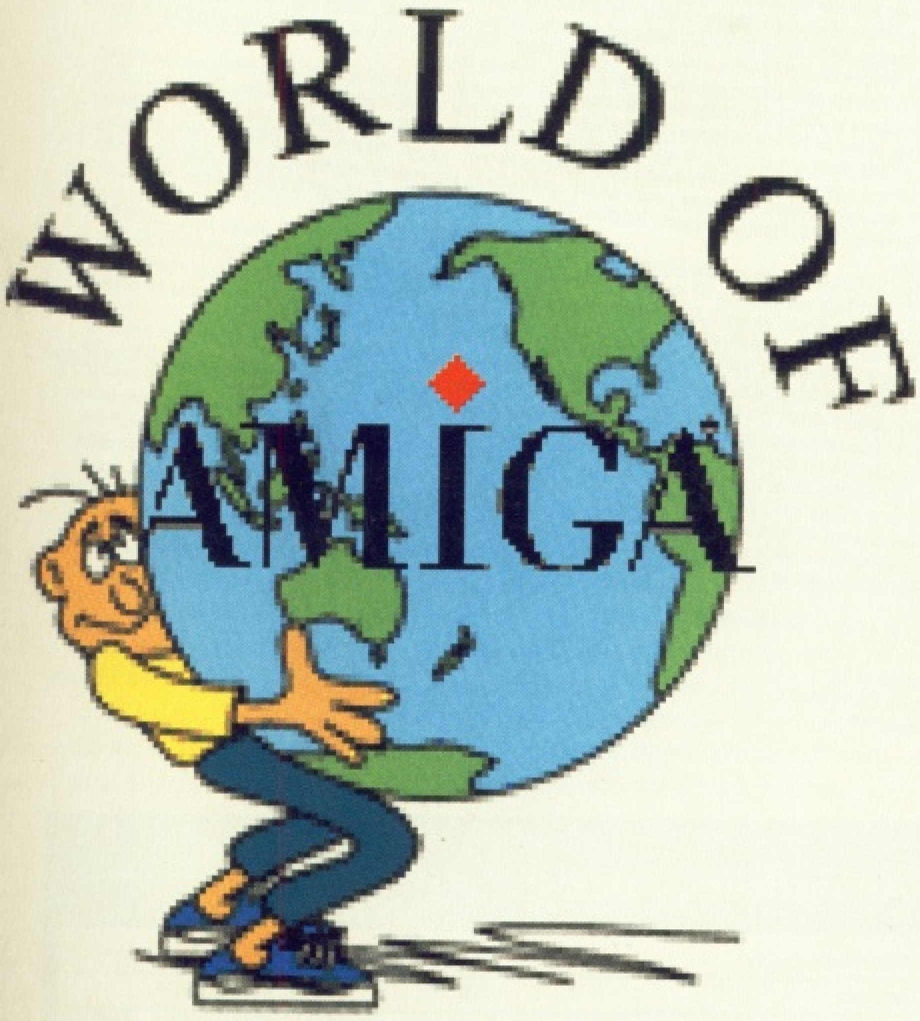
World of Amiga

After some months of uncertainty, we can reveal that the UK will be getting a major show this year. The World of Amiga show will be held over the weekend of the 16th and 17th of May in the Novotel, London.

It will host a developers conference, and in response to complaints about clashes with the cup final, a special football suite where the match will be shown live on a big screen. The list of exhibitors is growing fast, with Amiga International, Power Computing, Epic, CU Amiga, Weird Science and Blittersoft amongst many others already agreeing to attend.

The show will see public exhibitions of the DCE / Power Computing A5000, the Blittersoft/Index information BoXeR, PowerPC cards and software such as Wordworth 7, Foundation and Image FX3.0. There will be a number of competitions announced closer to the time and a network Quake tournament is being planned.

A developer's conference will be held preceeding the show, and it is hoped that some early developments of OS3.5 will be on display for the very first time. For further information on the show, and ticketing details, look for the advert on page 53 of this issue.



BoXeR gets PPC

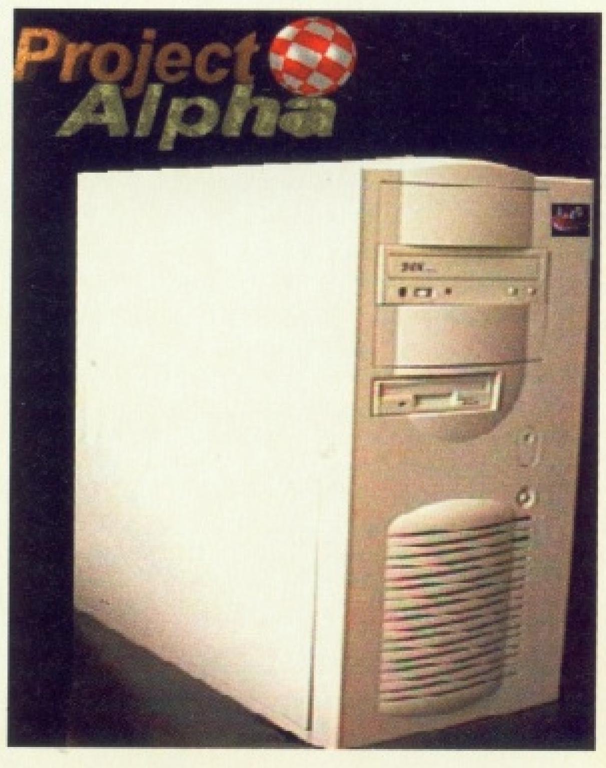
Index Information, Blittersoft and phase 5 digital products have announced co-operation on developing PPC hardware for the upcoming BoXeR motherboard. Index initially announced that PPC compatibility would come through a cheap upgrade path based on the board's built in 64 bit memory access path, but until now the details were unclear. This move will clear up any doubts developers or purchasers may have had about the compatibility of the BoXeR and PowerUP PPC solutions. Blittersoft's Paul Lesurf said; "Whilst the BoXeR is very much a product to provide a diverse range of Amiga systems, we feel it is important to maintain compatibility with the leading edge peripherals.

The agreement between the companies means that the BoXeR will develop compatible PPC technology quickly, and will support an interface to the Permedia 2 based CybervisionPPC cards currently in development by phase 5. The two companies stressed the importance of developing hardware standards, particularly stressing the advantage that universal availability of a 3D graphics system would provide. "By jointly choosing a common performance level for the next generation of GFX cards, together we can set a unified minimum standard which software developers can rely on. This will quickly increase the number of applications using highest resolution and the hardware 3D acceleration, including quite a number of fascinating new games," said Wolf Dietrich, general manager of phase 5.

Siamese Alpha systems

HiQ have announced the pricing of their forthcoming Siamese Alpha systems. A package consisting of a Samsung manufactured Alpha 21164 CPU running at 533MHz, a Samsung 21164LX motherboard, 64Mb of DRAM, a seven bay tower case, a Diamond FireGL 1000 8Mb graphics card, 2.1Gb UDMA hard drive, 24 speed CD-ROM drive, 16 bit sound card, keyboard, floppy drive and mouse will come in at £1599 plus VAT. This price will include the full Siamese software and WindowsNT on CD. In development to be packaged with the release is an Alpha specific version of WinUAE which will emulate Amiga 68K software on the Alpha processor. As a first step towards an OS port to Alpha and 68K emulation solution which will see the Alpha systems become completely Amiga compatible, WinUAE is a useful if imperfect stage. The authors have claimed that the Alpha technology will allow advanced emulation features impossible under Pentium based UAE, running emulation at speeds similar to an '060, but this remains to be seen.

HiQ are in negotiations with Kryotech, whose CPU coolers are claimed to allow the Alpha chips to run overclocked to around 800MHz, and hope to make an announcement on the matter soon. HiQ can be reached on +44 (0)1525 211327 or visit the Siamese Website at http://www.siamese.co.uk



Openscape forms

A public organization calling itself Openscape has recently been formed to tackle the various large task that will face the world computing community when the source code to Netscape 5.0 is released in the near future.

To date, the organisation has set up a number of mailing lists and a Website at www.openscape.org as a clearing house for pooling accomplishments and innovations achieved using the Netscape source. Hard information is still difficult to come by because Netscape has not spoken much further about the details of their plans. Organisations like Openscape should prove valuable for efforts to port the browser to the Amiga and other small platforms.

One of the few facts on the page is that Netscape has apparently stated that only the company itself will be able to use the trademark "Netscape" to describe a product. It is not yet clear what rules apply to porting efforts that Netscape itself is not directly involved with.

AAA Awards

This year's AAA awards for achievement in the Amiga market will be announced at Amitech '98 in Stockholm and the World of Amiga show in London. The award is meant to honour those who have done the most for the Amiga during the year.

The Swedish award will be presented at Amitech '98 at 3pm on the 4th of April, while the international awards will be announced on May 16th at 11 am at the World of Amiga show at the Novotel in London.

Nominations collected over the last year from Amiga users around the world will be put to a panel of judges who will determine three finalists. Voting is then open to the public to select a winner out of the three finalists during the month of March via the internet on http://www.aaa-awards.com or via a 24 hour telephone hotline which will announce nominees and accept votes on: +46 (0)90 710020

Amiga Inc: 1998 will be fun!

Darreck Lisle, the events and publicity co-ordinator for Amiga Inc. in the United States, has got in on an increasingly popular act by releasing a letter to the Amiga community. Unlike various momentous statements of late, this one is more intended to fill the oft mentioned need for some reassurance from AI that they are actually doing something with the platform and that there is good reasons to be hopeful for the future.

powered by AMIGA

Friends,
have you been hearing those cries of, "The end is near, The end is near!" on the Internet and in your
favourite Amiga magazine? We've heard them too, but with a difference. You see, what we're hearing is
that the end of the 'bad old days' is here and the Amiga has a bright future ahead of it!
Now, we're not going to say this will be easy and it certainly won't happen overnight. There are many
things that need to be done. Not all of these things are obvious and few of them are what you would
call high visibility changes. What we've got to do is dig the cellar again and rebuild the foundations of the
Amiga and the Amiga market.
You should already be seeing the results of this. For example:
There are over a dozen licensees of the Amiga making Amigas and Amiga clones. New models with new features
have already shipped. In the coming months you'll be seeing a lot more about these machines and you'll learn
about companies with names like DCE, Index Information Systems, Micronik, Quick Pak, Nova Sector. You'll be
able to buy Amigas that are faster, and more powerful, than ever before. As more of these machines get in the
hands of the writers and editors out there, you'll find out about them.
The Amiga games market is growing and taking control! Commodore determined the base configuration a game
maker could count on for his audience. Now games like Myst, The Shadow of the Third Moon, Quake and others
require CD-ROM, hard drives, and 4 megs or more of RAM. And guess what? The games are selling faster than
ever because if a user didn't already have these features in their Amiga, they're getting their Amigas upgraded.
New software applications are coming out and old applications are getting upgraded. You can now get Aladdin
4D 5.0, Tornado 3D 1.0, Electric Dreams, Wildfire, Directory Opus Magellan, ImageFX 3.0 and many, many,
more titles.
The Amiga trade shows are getting bigger and better than ever. Last year the Midwest Amiga Expo, St. Louis'
Amiga '97 and Koln's Computer '97 set new attendance records for both Amiga dealer/company participation
and for user attendance as well. This year we are looking forward to St. Louis' Amiga '98, International Amiga
'98 in Toronto, Canada, AmiWest in Sacramento, the 1998 Midwest Amiga Expo (which promises to be twice as
big yet again), and shows again in the UK and Germany as well.
Things aren't just happening within the Amiga community, no sir! Wired magazine and several news services
have run stories about the Amiga revival. Mainstream computer magazines have been referring to 1998 as the
year that alternative computer platforms, like the Amiga, will be gaining market share again. Amigas are still
used in mission critical applications where reliability and integration has been the key. The Amiga goes to war
in the M1 Abrams tank, up into space with the Space Shuttle and down to the ocean floor to help explore the
wreck of the Titanic for James Cameron's film. Of course, nearly everyone's local television and cable station
still has several Amigas in house for video work if you want something a bit closer to home.
You're going to be seeing a lot more of our work take form over this year. More new "Powered by Amiga" based
machines. An upgraded AmigaOS. Co-ordinated developer resources and user group resources.

1998 is going to be a fun ride!

Darreck Lisle
Events Co-ordinator
Amiga, Inc.

Microsoft Eye Gateway?

After last month's scare stories about British Telecom being bought out by Microsoft, this month's rumours will worry our overseas readers as much as our UK ones. Microsoft have been linked with a possible buyout of Gateway 2000, owners of the Amiga. Fuel for Paranoia indeed, but the story from Gateway is: we are not for sale.

Micronik Scandoubler licenced

Since Gateway took over the Amiga, the marketing arm Amiga International, lead by Petro Tyschtschenko, has been greatly concerned about the difficulties of sourcing monitors capable of displaying all Amiga video modes. The weakening of the German Mark against the British Pound was one of the factors which made a new supply of Microvitec monitors unfeasible.

As is the new way of things, Amiga Inc. has turned to a third-party supplier for an official solution. Micronik's line of scandoublers has been granted a "Powered by Amiga" trademark licence.

Scan doublers boost the regular video signals (PAL / NTSC) the Amiga can produce to a level a common PC VGA monitor can display. With a scan doubler installed, a standard PC monitor can be used for any Amiga resolution, eliminating the need for two monitors or an expensive and increasingly rare multisync monitor.

The scan doublers come in three models – an external box compatible with any Amiga's video port, an internal video slot version, and an internal A1200 version. The internal A1200 version comes in cheapest at £65 but is a more complicated installation than the other two, at £70 for the video slot and £75 for the external version.



Advertisers Index



Stateside News

by Jason Compton: Editor in Chief of Amiga Report Magazine

Access America

Index Information's low-cost Amiga-based multimedia machine, the Access, has landed on US soil. Paxtron of New York are handling sales of the unit, which consists of a full featured AGA Amiga powered by an 020 or optional 030 fitting in a single 5 1/4 inch drive bay.

Paxtron sells the basic motherboard for US$419, or US$552 installed in a custom case and power supply unit. The company is also expected to be a primary source for future Index products such as the BoXeR motherboard and the InsideOut Amiga motherboard/PCI card.

On another multimedia note, Paxtron has knock-down pricing on refurbished pro laserdisc units, the Pioneer LD-V8000 – under US$700 The company acquired them from a corporation which did not make use of them in an aborted expansion move—sounds like someone might have bought a lot of AmigaVision systems. Paxtron can be reached at 914-578-6522, or online at www.paxtron.com.

Fish bows out

Fred Fish has officially passed on many of the torches he has borne for the Amiga for so many years. The founder of Amiga PD distribution yielded to the momentum of Aminet long ago, but only recently did his company, Cronus, suspend the bulk of its Amiga support.

While Cronus will continue to support the Amiga in its Geek Gadgets CD-ROMs of GNU tools, it will no longer produce Amiga specific CD-ROMs or act as a distributor of Amiga products. The company held a liquidation sale to clear out its remaining inventory of Amiga CD-ROMs.

Fish made it clear that the decision was not made out of disgust or disenchantment with the Amiga but simply out of business concerns, and that in future the company may see fit to re-enter the Amiga market. Cronus will continue to support the Amiga mailing lists such as Amiga Report which operate through their ninemoons.com server.

Nova Design announces ImageFX 3

After much of the ImageFX community knew something was coming, Nova Design broke the long silence and finally announced the impending release of ImageFX 3.0. Atop the list of changes is a revamped interface – something people have been screaming for since the earliest releases of IFX. The new interface will allow users to work in multiple project windows from independent interfaces rather than from a single locked button bar.

More importantly, IFX 3 gains a full implementation of unlimited layers, allowing Photoshop-style image manipulation and creation. New digital and fractal effects will be making their debut, and another Photoshop influence comes in the FXForge module, which can use the same popular effects entered into the Filter Factory of the PC/Mac product.

Upgrades and new copies of version 3 are shipping now. Contact Nova Design in the States (804-282-1157) or Wizard Developments in the UK for more information.

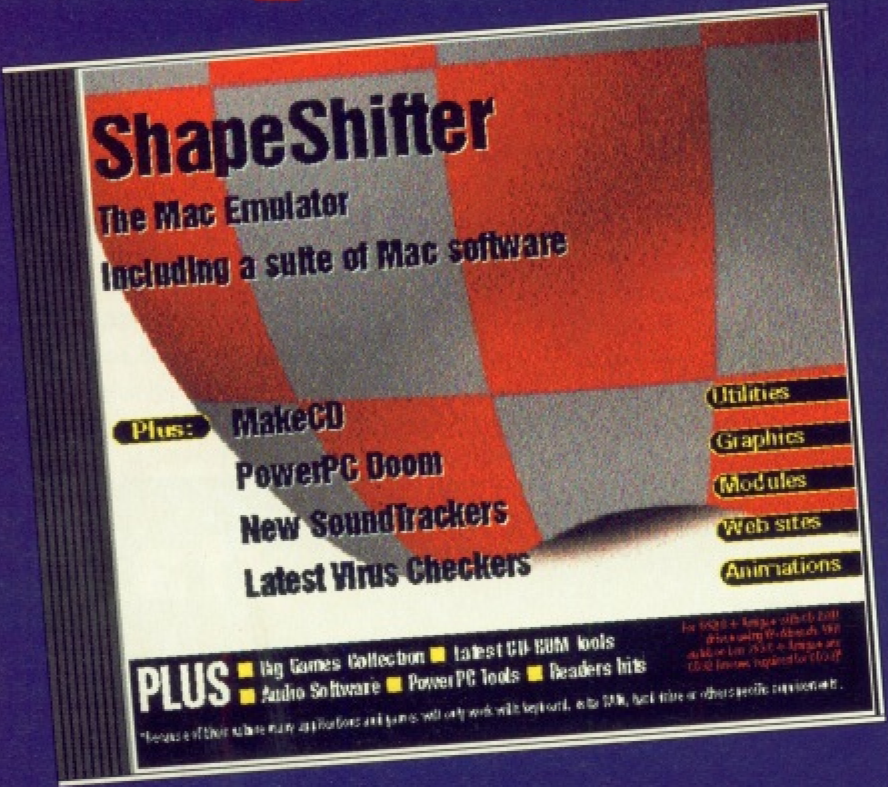
Digital Universe doubts

The highly acclaimed Digital Universe astronomy package may not shine as brightly on the Amiga in the future.

Syzygy Research and Technology have been making plans for version 2 of the software virtually since its release a few years back, to be on CD-ROM with expanded features, star and celestial body catalogues, and compatibility with PCs and Macs as well. Now the company is publicly questioning the viability of continued support of Digital Universe on the Amiga.

To clear the air and make their decision easier, they have started a survey page online where users and potential customers can stress the importance of DU 2. Syzygy projects that the new version would cost about $150 Canadian (£70) upon release.
To participate in the survey, check out http://www.syz.com/DU/amiga2.html

Super CD-ROM 21



Welcome to CUCD21. It's full of programs, games, utilities, mods and a host of other goodies. If you don't yet have a CD drive, this is your reason to buy one. Prices have never been lower and 650MB of quality software each month is just too good to miss out on.

How much of what?

It's easy to miss where the real contents of a CUCD21 lies so here's a list of how much data lies in each directory.

Headlining the CD is ShapeShifter (see page 18 for a walkthrough guide). Aside from that there's more than enough to keep anyone going for the next month, whether it's graphics, Web browsing, WebTV games or simply tinkering with the many and varied utilities and tools to be found on the disc.

- ShapeShifter 115MB
- CDSupport..............65MB
- System files............14MB
- CDROM 14MB
- Demos......................45MB
- Games......................41MB
- Graphics 66MB
- Information..............26MB
- Magazine 16MB
- Online 55MB
- Programming 12MB
- Readers.....................49MB
- Sound........................26MB
- Utilities 21MB
- WWW........................44MB

Making the most of CUCD21

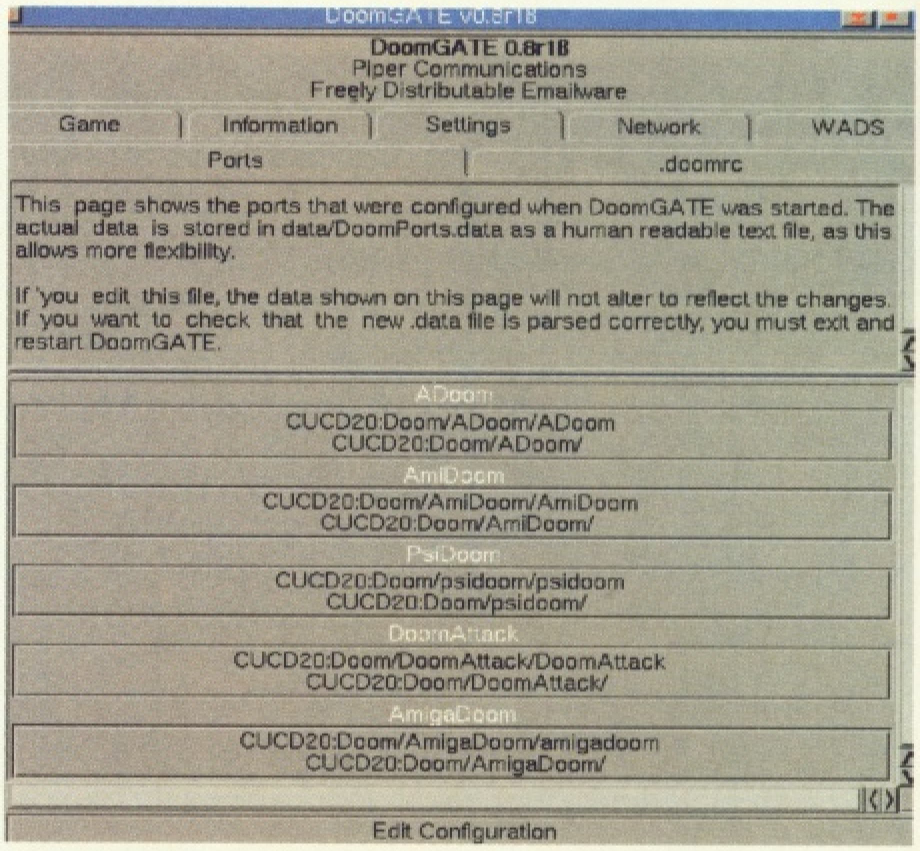
All CUCDs are designed to be used whether you boot from the CD or your normal Workbench. If you boot from the CD, everything is setup and ready to go. If you want to access the CD from your Workbench, you should first run InitCD. This sets up various assigns and paths needed by programs on the CD, so if you don't do it, things won't work. It doesn't make any changes to your system, or write any files to your hard drive, all changes are temporary and can be reversed by running InitCD again.

Your own custom CD

In the past you had to use whatever file viewers we set up on the CD. since these had to work with all Amigas they were quite limited. From CUCD12 we decided to allow you to specify how the CD should work on your Amiga and included CDPrefs in the CDSupport drawer. If you have never run this before you should be asked if you want to when you run InitCD. CDPrefs lets you specify which program you want to use to handle each type of file, graphics card users can view pictures in full 24 bit colour, ProjectXG users can listen to midi files through their midi card and people with sound cards can listen to mods with an AHI module player. It also means we were able to provide different defaults for Workbench 2.x users.

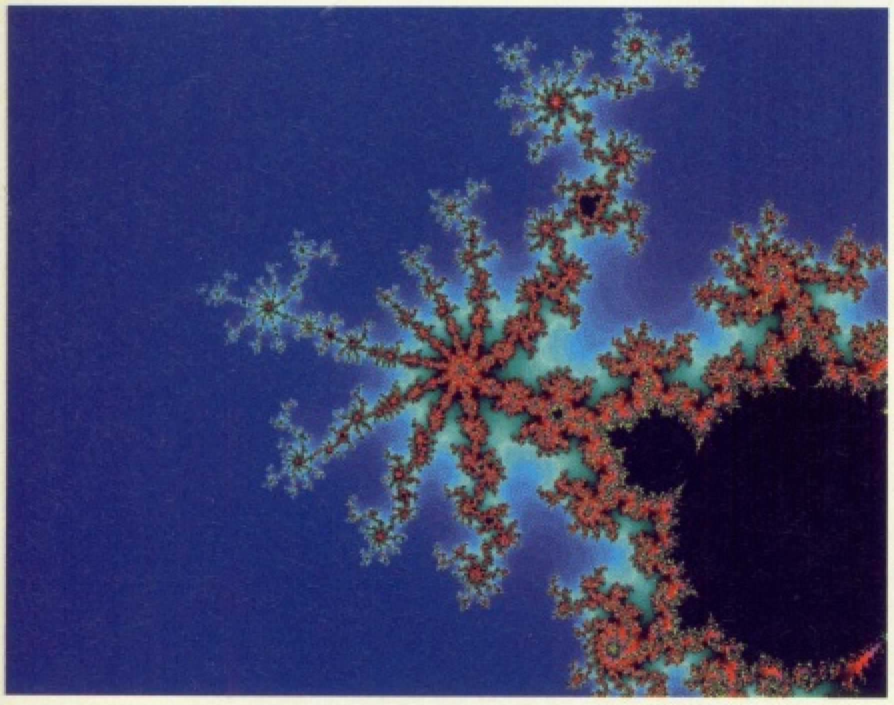
Once you have run CDPrefs, your setting will be saved to your hard drive and will be used every time you use this CD or any other CUCD.

Some people had problems with the original use of IDer, partly through a lack of understanding of how it worked and partly through a lack of explanation from us. All icons now use CUCDfile as their default tool, and the previous IDer problems should be a thing of the past. If you do have any problems, make sure you have run InitCD.



▲ **Doomgate makes playing Doom on your Amiga an altogether easier experience.**

Highlights of CU Amiga Super CD 21



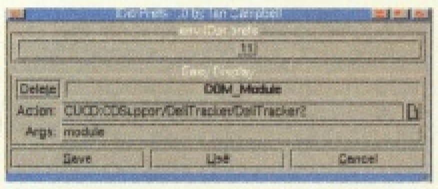
▲ FlashMandel in action. It's been a while since the craze for Mandelbrot patterns, but it's nice to see some decent new software arriving!



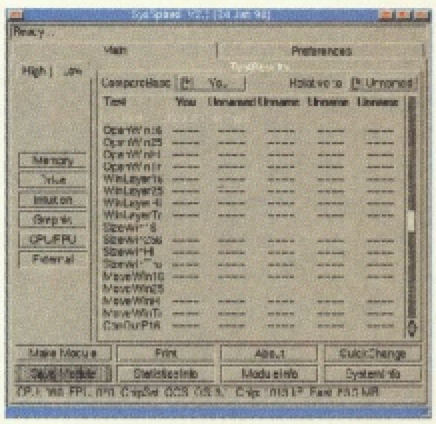
▲ A picture from the roving webcam at last year's World of Amiga Show. WebCam makes things like this a whole lot easier!



▲ Fancy using Adobe illustrator on your Amiga? Check out our collection of Shapeshifter bits and pieces to get the best out of your MAC emulation.



▲ Make your setup easier with IDERprefs.



▲ The ultimate system monitor. Find out just how fast your system is.

Games/DoomGate & Games/Gui4Doom

DoomGate and Gui4Doom both deal with the problems of remembering the command line options for launching each Doom.

They each provide an easy to use front end for starting any Amiga Doom.

Graphics/FlashMandel

There was a time when it seemed like every other program released was another Mandelbrot generator. Now there are very few released, but this particular one is a good one.

Graphics/P96Speed

As well as the latest Picasso96 software for graphics cards, we have this benchmarking program.

You can now compare the speed of Picasso96 and CyberGraphX software on your graphics card and against results for other hardware setups, before deciding which best suits your needs.

Online/WebTV

Mentioned in last month's Surf's Up, WebTV is now available.

WebTV monitors Web cameras at remote sites, re-downloading and displaying the image every time that it changes.

Utilities/XOpa

This is a system monitor that not only displays information about your system but also allows you to change. This means that you can do little things like controlling the priority of tasks and closing unwanted screens.

It also means you can crash your machine quite easily if you don't read the instructions first.

Utilities/IDerPrefs

Apparently inspired by CUCDprefs. This is a preferences editor for the excellent IDer file identifier and handler.

Utilities/SysSpeed

Another useful system monitor. This one tests many aspects of your Amiga's performance, both with theoretical and real life tests.

Making things work

Wherever possible, we have tried to make software work straight from the CD, this isn't always possible for a number of reasons. Some programs need to be installed to your hard drive to work, often requiring specific system files. These files are usually on the CD, so running InitCD often helps here.

Most software contains a list of system requirements in the documentation, and some will not run unless you have the required processor, memory operating system version or chipset.

Some programs, particularly demos and games are written in an OS illegal way. This can mean they only work on specific machine specifications, sometimes the readme states this, but not always. Many demos are intended to be run for a shell, the icons we add simply start them from a script. In some cases this will not work, especially demos that need a lot of Chip RAM. In this case you will need to boot without startup-sequence and run the program from the shell. Your Workbench manual should explain how to do this.

What's on this month's CU Amiga CD?

ShapeShifter: To go with the Mac emulation feature in the magazine, we have an excellent selection of Mac software as well as ShapeShifter itself. The software is provided in the form of ShapeShifter "filedisks". These are seen as hard drives by the Mac emulation. Since the Mac insists on trying to write to all hard drives, you will get lots of "Volume CUCD21 is write-protected" requesters if you try to access the file disks directly from the CD, so you need to copy it to your hard drive first. For this reason the files are split into 4 separate filedisks, 25MB each, to save finding room for a 100MB filedisk in one go.

The 4 filedisks are:

BootDisk: This is a bootable filedisk containing a full installation of MacOS System 7.0.1, the last freely-distributable version. In addition to the system software, this filedisk also contains a number of utilities that will be useful in setting up your own system.

These include Adobe Acrobat Reader, for viewing PDF documents, StuffIt Expander, the standard unarchiver on the Mac, File Buddy and ResEdit, for altering file and icon information, and a set of printer drivers.

UtilitiesDisk: The Desktop Enhancers folder contains several programs for improving or altering the look of the Mac desktop. Kaleidoscope is excellent for altering the look of the system windows and gadgets to something more pleasing. The Utilities folder has a range of programs for working with files and improving your system. This includes system monitors, virus checkers, file utilities and "commodity type" programs.

GraphisCommsDisk: The Graphics folder contains file viewer and conversion programs, such as JpegView and GraphicConverter, together with the Mac version of the POVRay ray tracing program.

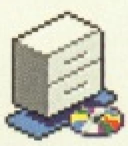
Comms contains the Zterm terminal program and Archiver has programs for handling a range of archived and encoded files. This inlcudes lha, zip, hqx and unencoded files, as well as a couple of versions of the Mac standard StuffIt expander.

GamesDisk: This is an indication of the size of Mac software. Three games fill a 25MB partition.

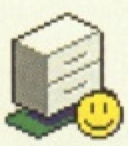
Achtung Spitfire is a WWII air strategy game, Air Traffic controller is pretty well described by its title and MegaSimpsonHomer is, well, about Homer Simpson!

CDSupport: This contains various support files, such as mod players, anim players, GMPlay, MUI, ClassAct. Most importantly, this is where the CDPrefs program lives. With this you can customise your CUCD to launch your choice of program for each type of file. Two other notable icons in here are Docs.guide, with links to all the program documentation files on the CD, and Index. Run Index, type in the name of a program, or part of it, and it will search the contents of the CD. You can either search the current CD or the index files of all CUCDs since number 4.

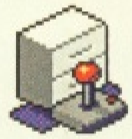
CUCD: The CUCD drawer contains most of the CD contents, here is a selection of what each drawer holds.



CDROM: RexxCD is an audio CD player with a difference, it handles synchronised lyrics for Karaoke type applications. There is also the latest MakeCD, that now handles Disk-at-Once (DAO) writing as well as the Track-at-Once system used in previous versions. DAO is most useful for recording audio CDs without pauses between the tracks. This is the program used to create the master copies of CU Amiga CDs.



Demos: Another substantial selection of demos this month. Over 45MB of audio-visual extravaganza for your entertainment and delight!

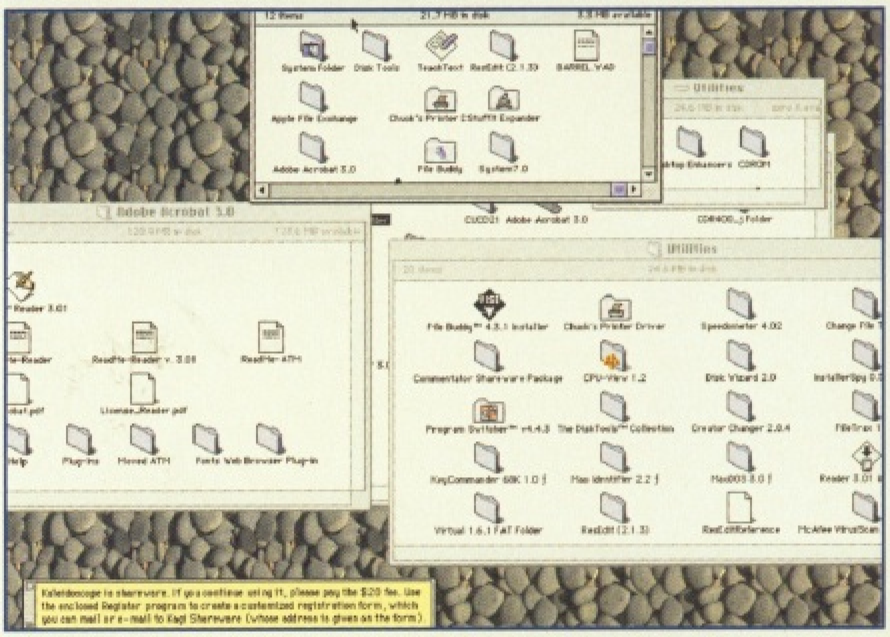


Games: Several updates on last month's Doom special, with new versions of most of the doom versions featured. There are also two new Dooms for PowerPC users, ZhaDoom and VDoomPPC.

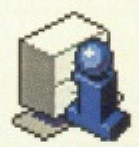
Also on this month's CD are a new BlitzBombers and updates for Myst and onEscapee as well as a range of other games.



Graphics: This drawer contains the latest versions of Picasso96 and RTGMaster, along with an update to aMiPEG, the mpeg video player. FlashMandel is a mandelbrot generator and there are more icons and backdrops to further customise your Workbench.



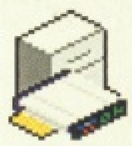
▲ **Not your normal Workbench screen – something to do with shapeshifter? Check out the amazing Mac hardfile, a computer on a CD-ROM!**



Information: This section has information files and guides on a range of subjects. This month it includes system information on libraries, datatypes, devices and classes. There is also a range of other subjects covered, such as World Cup statistics covering every competition before France '98.



Magazine: Here are all the support files for the C Tutorial, SoundLab and Wired World. To go with the STFax review, there are a number of samples for use as answering machine messages. You don't need STFax to use these since they can be recorded onto a normal answering machine too.



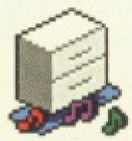
Online: Archives of last month's postings to the CU Amiga mailing list, along with details of how you can join in here. There are several new mail and news readers here, such as FFNews, Monsoon, Mutt and a preview of YAM2.



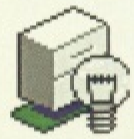
Programming: You can find hints and tips from the Amos and Blitz Basic programming mailing lists. There is a collection of Amiga E plugins for use with EasyGUI as well as a drag & drop add on for GadTools. More PowerPC programming languages are here along with the Istar "knowledge based system builder"



Readers: We have almost 50MB of readers submissions this month, including a CDXL video on how to tower your A1200. We have number of modules and animations from readers plus several utilities and games.



Sound: A demo version of Symphonie Player Pro and a full release of the final version of the DigiBooster tracker. There are more mp3 utilities, a GUI for MPEGA and a program to read and modify the tag information held in mpeg audio files.



Utilities: As usual, too many to describe. There are 29 separate utility programs in here, plus a selection of new datatypes and some replacement imagery and filetypes for Directory Opus users.

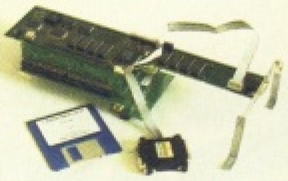


WWW: Another collection of WWW sites, together with a choice of browser to view them.

Have a look at this sample of the sort of information that is available on the World Wide Web, including the fantastically, brilliant, exciting, world famous etc... CU Online site!

Graphics & Video

The Eyetech 1-slot Zorro adapter, CV64/3D graphics card and the AUTO-MON CV64 3D & Amiga RGB video switch.



Eyetech 1-slot Zorro adapter	£99.95
Eyetech 7-slot Zorro adapter	£149.95
1-slot to 7-slot Zorro upgrade	£79.95
CV 64/3D 4MB graphics card	£159.95
1-slot Zorro + CV64/3D bundle	£99.95
AUTO-MON video switch	£39.95

The MK2 EZ-VGA Auto scan doubler adapter is now available with optional flicker-fixer for rock-steady 'interlaced' PAL/NTSC display modes

EZ-VGA Mk2 upgradeable scandoubler	£79.95
EZ-VGAPlus scandoubler/flickerfixer	£119.95
Upgrade EZ-VGA Mk2 to EZ-VGAPlus	£50.00
Engineering-workstation quality 17" monitor, 0.26 dot pitch, 1600 x 1280 @75Hz non-interlaced, 1yr on-site + 2yrs RTB warranty	£399.95

Eyetech EZ-TOWER Options / Other A1200 towers (for comparison)

	Backplate Kit	DIY EZ-Tower	Full EZ-Tower	EZ-Tower Plus	Infinitiv tower	Power tower
DF0: face plate, cable	Yes	Yes	Yes	Yes	Yes	Yes
Custom backpanel with SCSI/audio KO's	Yes	Yes	Yes	Yes	Yes	Yes
A1200 power and LED adapters	Yes	Yes	Yes	Yes	Yes	Yes
CE-approved metal PC case	n/a	Yes	Yes	Yes	Plastic	Metal, not CE
No of bays/PSU capacity	n/a	10/250W	10/250W	10/250W	5*/200W	7/200W
Accessible PCMCIA slot	Yes	Yes	Yes	Yes	+£24.95	+£29.95
DIY assembly instructions	Yes	Yes	n/a	n/a	Yes	n/a
Installation instructions	Yes	Yes	Yes	Yes	Yes	Yes
PC board/Siamese compatibility	Yes	Yes	Yes	Yes	No	No
Assembled & A1200-ready	No	No	Yes	Yes	No	Yes
EZ-Key adapter & Win95 k/b*	Option	Option	Option	Yes	Yes	Yes
Eyetech installation option	No	No	Yes	Yes	n/a	n/a
Cost with options as specified	£39.95	£79.95	£99.95	£148.95	£214.85*	£179.90

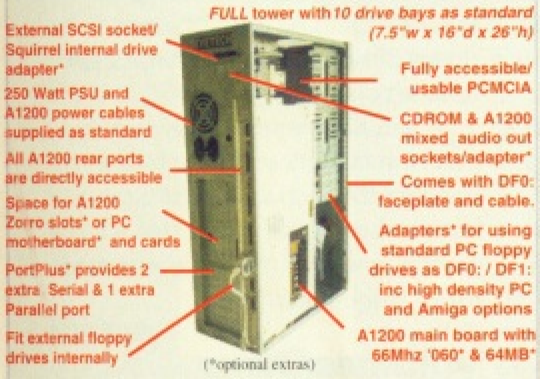
* The Eyetech *EZ-Key* adapter autodetects Amiga & PC keyboards & has two selectable PC keyboard mappings. Other keyboard adapters are single function only.

* with additional 5.25" drive bay as recommended



The A1200 EZ-Tower

"This definitely one of the easiest solutions to building your own tower." Amiga Format
"The Eyetech tower offers clever solutions with a Velcro easyfit mentality" Cu Amiga



Now You've Got Tower Power!

A fabulous, time-limited EZ-Tower System offer* from Eyetech!!!



(... but only available whilst stocks last!)

- √ ***Ready built EZ-Tower*** with 250w PSU
- √ ***EZ-Key*** keyboard adapter, ***Windows95 keyboard.***
- √ ***Full UK specification A1200, Kickstart 3.1/Workbench 3.1*** disks, manuals, mouse, mousemat and TV lead.
- √ ***880KB floppy drive*** including faceplate
- √ Fantastic software bundle including ***Wordworth 4SE, Turbocalc 3.5, Datastore 1.1, Photogenics 1.2SE, Personal Paint 6.4, Organiser 1.1, Pinball Mania and Whizz***
- √ All items fully installed, tested and ready-to-go!

Complete EZ-Tower floppy system as described left for an unbelievable £349.95

Why not have these upgrades installed *at time of purchase only* at the following very special prices:

- √ ***1.2GB*** TowerDrive and cable for **Just £89.95**
- √ ***Apollo '030/33MHz accelerator with MMU, FPU*** and ***8MB*** memory for **Just £89.95**

* Prices in this box are not valid in conjunction with any other offer from Eyetech

What about PowerPC upgrades? The Blizzard PowerPC boards from phase5 will fit in the trapdoor space of an EZ-Tower'd A1200, with or without a Zorro expansion board. However you should bear in mind that the PPC boards will be limited to providing 'subroutine' support to specially written 680x0 programs (just like an expensive FPU) for the forseeable future. If and when a proper native PPC Amiga operating system is available Eyetech will start stocking and supporting these boards directly.

Looking for an all-in-one package? Why not treat yourself to the Eyetech EZ-Tower Professional Pack 2?



The Eyetech Professional pack comes with a full EZ-Tower, new WB3.1 A1200 and ...

Just look what you get for an unbelievable £799.95!

- √ ***EZ-Tower*** with full UK specification A1200, ***Kickstart 3.1/Workbench 3.1*** disks and manuals, mouse, mousemat, TV lead and 250watt psu.
- √ ***EZ-Key*** keyboard adapter, ***Windows95 keyboard.***
- √ ***33MHz '040*** processor (approx 25 Mips) with MMU & FPU and ***16MB*** of program memory.
- √ ***2.1GB TowerDrive*** with Workbench 3.1 and shareware utilities preinstalled
- √ ***16-speed CDROM*** including the ***Eyetech 4-device buffered interface*** with ***fully registered EZ-IDE*** CDROM/hard drive/IDE Zip drive/LS120 driver software (see main ad for EZ-IDE details)
- √ ***880KB floppy drive*** including faceplate
- √ Fantastic software bundle including ***Wordworth 4SE, Turbocalc 3.5, Datastore 1.1, Photogenics 1.2SE, Personal Paint 6.4, Organiser 1.1, Pinball Mania and Whizz***
- √ All items fully installed, tested and ready-to-go!

AND the option to have:

- √ An ***LS120*** 720KB/1.44MB/120MB super floppy drive/cable installed in your machine for ***just £84.95 extra*** (at time of purchase only)



EZ-KEY & Win95 k/b,



33MHz '040 & 16MB fast RAM,

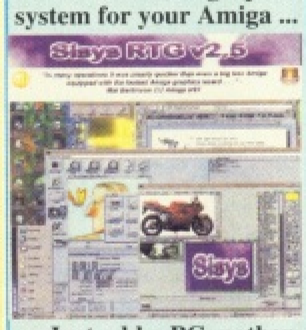


16x CDROM, 2.1GB HD, EZ-IDE s/w & 4-way EIDE i/f,



The optional LS120 120MB Superfloppy

The fantastic Siamese RTG2.5 ethernet graphics system for your Amiga ...



... Just add a PC motherboard and it becomes the perfect partner for your EZ-Tower'd A1200!

Then use PC-side hard & floppy drives, CDROMS, printers and graphics cards as native Amiga peripherals!

The Eyetech Ethernet Siamese pack contains:

- √ A1200 PCMCIA ethernet card and driver software
- √ PC ethernet card and driver s/w
- √ Ethernet cable, 'T' pieces and terminators
- √ Full Siamese RTG2.5 software

All this for just £199.95!!!

(Amiga TCP/IP stack & Win95 O/S required)

Love your A1200 but need PC compatibility for work or study purposes? Then you need Eyetechs EZPC-Tower system!



Just £999.95 gets you a fully loaded Siamese ethernet system with:

- √ A full Amiga ***EZ-Tower*** system ***ready to take your A1200.***
- √ Jumperless 266MHz-capable PC Pentium board with ***200Mhz cpu, 32MB*** of memory, ***Win95 keyboard & mouse*** & second fan.
- √ ***Full-screen full motion full colour video capture*** card with ***TV tuner and frame grabber*** (with video camera input).
- √ High performance, ***high res graphics card*** with full screen/full frame rate ***MPEG playback.***
- √ ***32-voice*** high performance ***sound card*** with direct-to-disk, ***CD-quality recording software.***
- √ ***2.1GB*** hard drive, ***16-speed*** CDROM, ***2x S,1xP & USB ports*** and 1.44MB FDD
- √ Full ***ethernet Siamese 2.5RTG*** system with ***Amiga and PC ethernet cards***, driver software, cables & terminators and ***scandoubling system for non-retargetable Amiga screens*** such as games. (The ethernet Siamese system requires an Amiga TCP/IP stack - as used by Internet software - and Windows95 operating system - see below).



EZPC & Amiga ethernet adapter



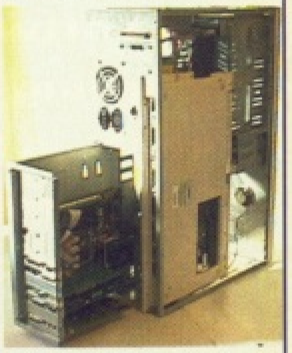
HD,CDROM,FDD & optional CDROM Writer upgrade

EZPC options (at time of ordering only) :

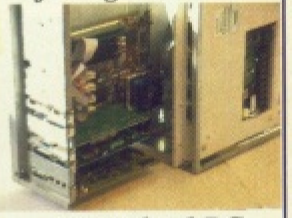
- √ CDROM upgrade to CDROM 2xwriter, 6x reader ***+£249.95***
- √ Windows 95R2 OS & Lotus Smartsuite bundle (WordPro, Lotus 123, Approach database, Organiser, Freelance Graphics etc) ***+£99.95***
- √ Miami Amiga TCP/IP stack (fully registered) ***+£29.95***

Ring for hard drive, CDROM, memory & processor upgrade options

All EZ-Towers ...



...feature a slide-out mounting frame for fitting either ...



...a standard PC motherboard and cards, or...



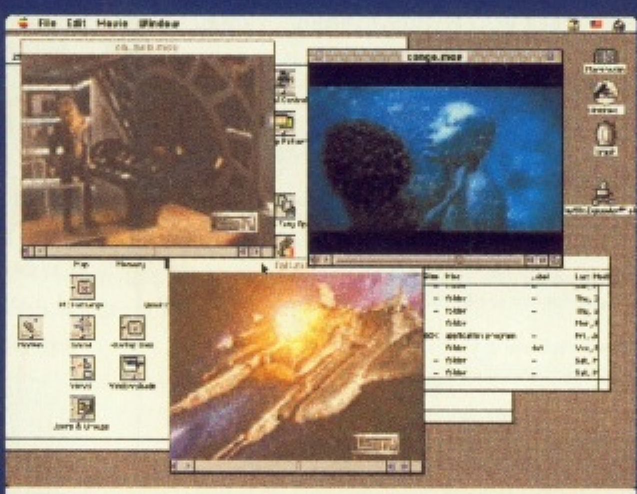
...a Zorro board and cards (as well as your A1200).

ADPT-AUD-EZTW	EZ-Tower audio mix/adapter for A1200/CDROM	19.95
ADPT-AUD-RCA	RCA(phono)-M -> 2xRCA-F adapter	2.50
ADPT-AUD-RCA-G	RCA(phono)-M -> 2xRCA-F gold plated adapt	3.50
ADPT-CDPL-PWR	CDPlus external power socket + HD pwrcab	9.95
ADPT-DF0-FP	Tower faceplate adapter for A1200 int FD	6.95
ADPT-DF0-TWR	34-34 way cable and faceplate for DF0	12.95
ADPT-ETH-BNCT	BNC T-piece 2xM + 1xF	4.95
ADPT-ETH-TERM	Ethernet BNC coax terminator 50R	4.95
ADPT-HD-2/3	2.5"/44way -> 3.5"/40w+4w & mtg bracket	11.95
ADPT-HD-3/5	3.5" Zip/SyQuest/FDD/HD brkt/pl ->5" bay	5.95
ADPT-KBD-5P6P	Amiga/PC k/b adapter 5p din-F ->6p m/d-M	5.95
ADPT-KBD-6P5P	Amiga/PC kbd adapter 6p mindin-F ->5pd-M	5.95
ADPT-EZKEY	Amiga/PC k/b -> A1200 kbd ribbon cable	39.95
ADPT-EZKEY-W95	Amiga/PC k/b->A1200 kbd rib cab+Win95 k/b	49.95
ADPT-PCM-ETH	PCMCIA ethernet card with Amiga/PC drvrs	89.95
ADPT-SCAR-CMP	Amiga comp video (RCA)+2xAudio to SCART	12.95
ADPT-SCAR-RGB	Amiga 23p+2xRCA to RGB TV SCART + audio	12.95
ADPT-SCSI-EZTW	EZ-Tower SCSI adpt 30cm 2xCent50F+1xIDC50F	19.95
ADPT-SQ3-PAR	SQ3 adapter Epson scanner -> par printer cable	9.95
ADPT-SW-S/K	Dual monitor & k/b switchbox	19.95
ADPT-VGA-9M15F	Adapter from 9p D-F to 15p HD-M VGA	9.95
ADPT-VGA-15M9F	Adapter from 15p HD-M VGA to 9pD-F	9.95
ADPT-VGA-BUF	Amiga 23pin-F to 15pinHD-F VGA adapter	19.95
ADPT-VGA-UNBF	Amiga 23 pin(f)-15 pin HD(f) VGA adapter	12.95
ADPT-VGA-AMON	Auto Amiga/CV643D m/sync monitor switch	39.95
ADPT-VGA-SDBL2	Amiga extern scandoubler upgrad'le to FF	79.95
ADPT-VGA-SDFF	Amiga extern scandoubler/flicker fixer	119.95
ADPT-VGA-SDFF/UG	Upgrade from scandoubler to f/fixer	50.00
INT-12C-DSKPL	DiskPlus FDD D/H/S dens i/f A1200clkport	69.95
INT-12I-EZCD4	4-dev buf IDE/CD i/f w/ active IRQ A1200	39.95
INT-12I-DSKPL	DiskPlus D/H/S dens Am/PC FDD 1200 IDEpt	64.95
INT-4KI-CD4	4-device EIDE interface for A4000	19.95
INT-4KI-DSKPL	DiskPlus Fdd D/H/S dens Am/PC A4K IDE pt	69.95
INT-FDD-DF0	Interface for std Sony FDD for DF0 880KB	14.95
INT-SER-PPL	PortPlus 2x 460kb ser + hispeed par port	79.95
INT-SER-PTJR	PortJunior - 460KB serial i/f for A1200	39.95
ADPT-Z2-A12/1	A1200 ZII adapter with 1 ZII slot	99.95
ADPT-Z2-A12/7	A1200 ZII adapter w/ 7xZII + 5xISA slots	149.95
ADPT-Z2-A12/7/UG	A1200 ZII adapter 1->7 slot upgrade	79.95
ADPT-Z2-KBUG	Keyboard interface upgrade for Z2 adpter	35.00
GFX-C643D	Cybervision 64/3D Z2/3 Amiga graphix crd	159.95
GFX-Z2-CV/Z2-1	1-slot Z2 + C643D bundle without f/fixer	249.95
GG2-ISA-ETH	NE2000 ISA ethernet card BNC for GG2-BB	19.95
GG2-ISA-MIO	Multi-I/O ISA card 2xIDE,2xSER,1xP	14.95
GG2-Z2-BB	GG2 Zorro2 brigeboard for PC ISA periphs	119.95
INT-Z2-IDEPL	IDEPlus 6xIDE+2xDD/HD FD, IDEFix, Zorro2	79.95
INT-Z2-PPL3	PortPlus Zorro 2xS, 1xP, expansion bus	69.95
INT-Z2-PPL4	PortPlus4 - Zorro 4xSerial + expansion bus	89.95
INT-Z2-PPX	2xS +1xP expansion for INT-Z2-PPL3/4	59.95
CAB-AUD-3.5/RCA	3.5mm stereo jack -> 2xRCA-M plugs 1.2m	5.95
CAB-AUD-CD	CDROM invt'd T audio cab .6m + 2xRCA plg	9.95
CAB-AUD-MIX	RCA(phono)-M -> RCA-M+RCA-F mix ld 1.8m	6.95
CAB-ETH-60C	Ethernet coax/BNC-F 60cm for Siamese	9.95
CAB-FDD-EX.5M	External FDD extn cab 23-M -> 23-F 0.5m	12.95
CAB-FDD-EX2M	External FDD extn cab 23-M -> 23-F 2m	14.95
CAB-HD-FD/4	23p-M-floppy -> 4p-F HD/CD pwr 0.9m	9.95
CAB-HD-KIT	A1200 full 3.5" hard drive fitting kit	24.95
CAB-HD-PWEXP	Tower power expdr 4pM->3x4pM+FDDpwr	11.95
CAB-HD-PWRXT	4p-M -> 4p-F HD/CD power cab ext 0.9m	9.95
CAB-HD-PWSP	HD/CD pwr splitter 4p-M ->2x 4p-F 15cm	6.95
CAB-IEC-1.5M	AC power cable 13A-M -> IEC-F 1.5m	2.95
CAB-IEC-4X13	AC powerstrip exp'der 1xIEC-M ->4x13A-F	19.95
CAB-KBD-MF	5p DIN-M - 5p DIN-F k/b ex cable 1.2m	7.95
CAB-KBD-MM	5p DIN-M - 5p DIN-M k/b cable 1.2m	7.95
CAB-PD-.3M	44->40way 3.5" HD data & pwr cabs A1200	14.95
CAB-SCS-25/50	SCSI cable DB25-M -> Cent50-M 1m	9.95
CAB-SCS-25M/25M	SCSI cable DB25M-DB25M mac type	9.95
CAB-SCS-50M/50M	SCSI cable Centr50M->Centr50M 1m	9.95
CAB-SER-EX.5M	DB25-M -> DB25-F RS232 extn cab 0.5m	6.95
CAB-SER-EX2M	DB25-M -> DB25-F RS232 extn cab 2m	7.95
CAB-SER-SSQ	9pDM->9pDF SurfSq EZ-Tower ser extn cab .5m	9.95
CAB-VGA-MF	15p DM-HD -> 15p DF-HD VGA ext cable 2m	9.95
CAB-VGA-MM	15p DM-HD -> 15p DM-HD VGA cable 2m	9.95
CAB22-2W-9C	22way-Fx2 A1200 clock port cable 9cm o/a	6.95
CAB34-2W-50C	34way-F x 2 FDD ribbon cable for tower 50cm	9.95
CAB40-2W-20C	40w-F x2 IDE/HD/CD cable 20cm o/a len	5.95
CAB40-3W-1M	40w-F x3 IDE/HD/CD cable 1m o/a len	9.95
CAB40-3W-60C	40w-F x3 HD/CD/IDE cable 20+40cm=60cm o/a	9.95
CAB40-3W-85C	40w-F x3 IDE/HD/CD cable 85cm o/a len	9.95
CAB40-CUST	Custom cable 3x40way IDE up to 1.5m	19.95
CAB40-DDC	IDE IDC40-F -> IDC40-M skt with mtgs 0.15m	9.95
CAB44-2W-13C	44way (2.5" HD) cable 2 cntr, 13cm o/a	9.95
CAB44-2W-60C	44way (2.5" HD) cable 2 cntr, 60cm o/a	19.95
CAB44-2W-9C	44way (2.5" HD) cable 2 cntr, 9cm o/a	8.95
CAB44-3W-24C	44way (2.5" HD) 3 cntr,7+17cm=24cm o/a	14.95
CAB44-3W-12C	44way (2.5" HD) cable 3 cntr, 12cm o/a	12.95
CD-CP-4X-SP	4-speed component CD sys w/ PSU,EZCD i/f	89.95
CD-CP-8X-SP	8-speed component CD sys w/ PSU,EZCD i/f	99.95
CD-CP-16X-SP	16-speed component CD sys w/PSU,EZCD i/f	109.95
CD-CP-24X-SP	24-speed component CD sys w/PSU,EZCD i/f	119.95
CD-FT-4X	CDPlus Fulltwr 4x special w/PSU,EZCD i/f	79.90
CD-FT-8X	CDPlus Fulltwr 8x special w/PSU,EZCD i/f	189.90
CD-FT-16X	CDPlus Fulltwr 16x spec'l w/PSU,EZCD i/f	199.95
CD-FT-24X	CDPlus Fulltwr 24x spec'l w/PSU,EZCD i/f	209.95
CD-MT-4X,(CD-DT-4X)	CDPlus Minitwr (DT) 4x special w/PSU,EZCD i/f	109.95
CD-MT-8X,(CD-DT-8X)	CDPlus Minitwr (DT) 8x special w/PSU,EZCD i/f	119.95
CD-MT-16X, (-DT-)	CDPlus Minitwr (DT) 16x spec'l w/PSU,EZCD i/f	129.95
CD-MT-24X, (-DT-)	CDPlus Minitwr (DT) 24x spec'l w/PSU,EZCD i/f	139.95
CASE-CD40W	CDROM case (IDE, audio cntr, 40Wpsu, CE)	59.95
CASE-MT, (CASE-DT)	MiniTower (DT) case 200W+psu w/ contrs & instr	39.95
CASE-FT	Full PC tower, 250W PSU, modable for A12	59.95
CASE-FT-1200	Full A1200 Tower 250WPSU,LED adpt,FD cab	99.95
CASE-FT-BPKT	EZ-Tower backpanel conversion kit - No PC twr	39.95
CASE-FT-KIT	EZTower kit w/ backpanel etc for self conversion	9.95

COVER DISKS
ShapeShifter



We've got bored of giving away free software, so this month we are giving something slightly different - a whole new computer. This harmless looking pair of disks are all you need to take your first steps into the world of Mac emulation.



Loading instructions

You can run Scala straight from the CD or simply drag the Scala drawer over to your hard drive. Click the MM300 icon to start the main program. Disk users have a simple installer. Boot from your hard drive and insert the first cover disk. Open the disk and then drag the icon that appears over the required destination on your hard drive. Scala will then be installed.
You'll find some additional Scala data on the second cover disk. Copy the contents of the Fonts drawer into the Fonts drawer of your Workbench or Sys: partition on your hard drive. The fact that you don't have many data files on the disks doesn't detract from the use of Scala, as you'll be using most of your own graphics, animations and sounds once you get the hang of it.

Ditching the Amiga for the Mac is a bitter pill we'd never ask you to swallow. But taking little nibbles out of the Apple can be very sweet indeed, which is why we've given you a full load of ShapeShifter and assorted goodies this month. All you need to do is supply the Mac ROM (see this month's Mac emulation feature for more details).

Setting up ShapeShifter is actually quite straightforward, but here's a window-by-window foolproof method to get the most out of your new Mac emulation system.

Graphics

The graphics window is where you configure your Amiga display hardware, be it a built-in chipset or a CyberGraphX or other sort of graphics card.

You can also choose to display in a monochrome Workbench window. If you make any other selection, you need to define a screenmode from the standard requester. Most modern Mac software expects at least a 640x480 screen although it is possible to get away with less in some cases. Unless you're getting into some very serious power usage, leave the "1 monitor" setting alone.

A real Mac (and an Amiga with more than one display device) can spread a Mac desktop across multiple physical monitors, which is most commonly used in DTP houses with "page size" monitors which are much taller than they are wide.

The refresh rate depends on your machine's speed – the slower your machine and the more colors you ask from ShapeShifter, the higher this value should be (and subsequently, the less frequent the screen updates).

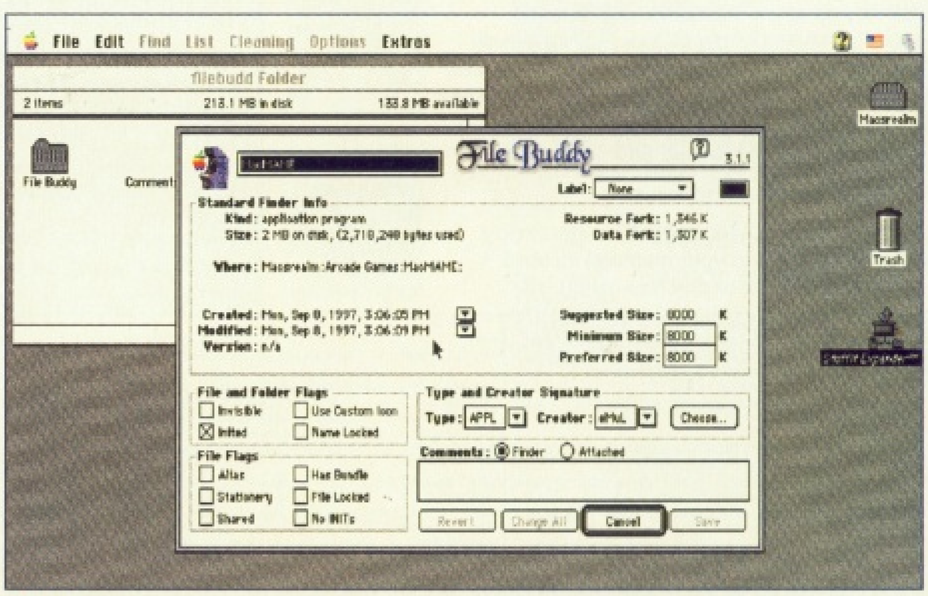
If you have a sufficiently fast machine (an 040 or 060) you can enable MMU refresh, which does a "smart" refresh of the screen, and lock this value in at 1 (most frequent updates)

Volumes/Disks

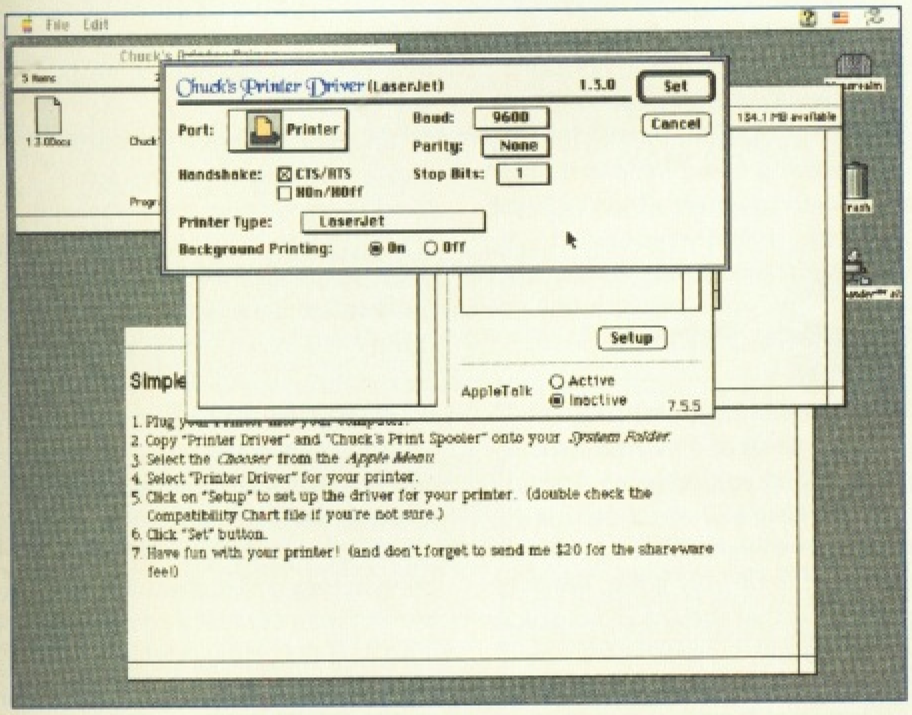
Let ShapeShifter know what it should consider its hard drives, or virtual hard drives. In the unregistered ShapeShifter we've included on CD, you will only be able to use the Filedisk 1 and 2 fields, as the keyfile unlocks access to real Amiga devices such as hard drives and CD-ROMs.

In the Filedisk 1 path, you should put the full path and name of the boot filedisk we've included and assign it as the boot partition. Filedisk 2 is for the filedisk you want to explore – utils, games, tools, etc.

Note that it is highly recommended that you copy the filedisks



▲ FILE BUD



▲ CHUCKS PRINTER DRIVER

off of the CUCD and onto a hard drive, preferably a fast one with lots of AmigaDOS buffers assigned to it.

You can access it from CD but the MacOS will not be able to save to it, which could cause problems, and the access will be slowed down considerably.

Floppy

A simple window to determine which of your floppy drives ShapeShifter should access, and whether it should take exclusive control of them.

This can be useful if you want to keep your Amiga virus checkers from choking on an alien format.

SCSI

Enabled when you register ShapeShifter, you can directly access any SCSI device connected to your Amiga under the emulation. Also tweaks the CD-ROM access you get with the registered version.

Memory

From here, you allocate your Amiga's memory to the Mac task. For best results you should start ShapeShifter before launching and quitting from all sorts of Amiga applications which can fragment your memory and leave very little continuous space for the Mac.

Graphics board users are cautioned to leave a cushion of 2-4 megs for video memory above and beyond what the emulation says is the maximum available.

Also, a modern Mac will want at least 8 megs available to it before you can really do anything useful.

Serial

Designates which Amiga port will act as the Mac's modem port and which as the Mac's printer port.

You can also directly access the ports on A-Max or Emplant cards – so don't chuck them just because ShapeShifter's arrived on the CD.

Network

You can give the Mac access to Amiga networking hardware if you want to set it up on a LAN or similar.

Miscellaneous

The leftover bits and bobs, mostly useful for controlling audio.

If you are really strapped for CPU power you can disable the audio, and if you're using an AHI device you can redirect the Mac's audio through it. (However, the audio is 8-bit regardless of whether you use Paula or a 16-bit AHI card.)

Speeding up video

The best way to speed up ShapeShifter's video performance is with a graphics card and a faster processor.

If that's not immediately in the cards, you can get modest gains on ECS and AGA performance through the use of External Video Drivers (EVDs). EVDs are also used for some graphic boards not directly supported by ShapeShifter, such as the Retina II, Retina Z3 direct, and A2410 direct.

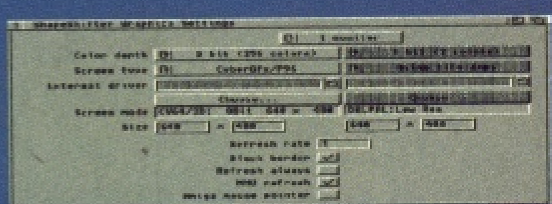
EVDs allocate a large portion of memory to buffer the chunky-to-planar conversions that are the major bottleneck in the display of Mac screens. This allows a much better level of performance. Some EVDs have been tuned to AGA specific modes, while others enhance ECS performance as well.

You can even use HAM8 under TurboEVD if you have a bit of a sense of humour, or need a simulated 16 bit display in a serious pinch. You'll want to check the documentation for each EVD before installing it – in general, you activate it by selecting "External" in the ShapeShifter Graphics preferences and pointing to the EVD you wish to use. The EVD docs will tell you how to configure your screen – most tell you which resolution and refresh rate pairs work best together.

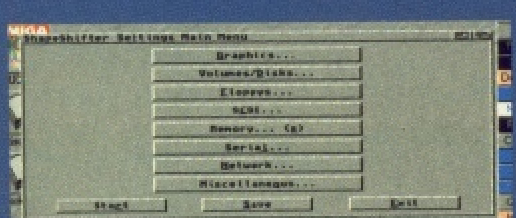
Some, like TurboEVD, have external prefs programs to organize additional information like palette handling.



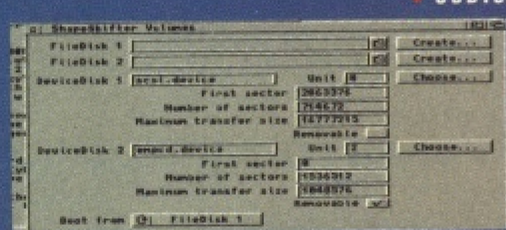
▲ SSMEM



◀ SSGFX



SSMAIN ▶



▼ SSDISK

On this month's CUCD, we've included a starter Mac hardfile (virtual hard disk) with some of the more useful Mac files out there. While by no means a complete resource, you should find enough to cut your teeth on.

Stuffit Expander

As indispensible to Mac users as LHA is to us. Stuffit format files have an .sit ending, and it is by far the most popular compression method used by Macs.

Stuffit Expander also decodes Mac BinHex (.hqx) files, which is akin to but different than a uuencoded file. Easy to use, just pick a file to expand and let it go to work.

ResEdit

If you had 10,000 pieces of Mac software, 9,999 would treat you like a child and keep you from touching the real power of the machine.

This is that other one. ResEdit is the first stop for Mac hackers, and lets you poke around inside any Mac executable, checking out the code, the dialog boxes, and other fun stuff.

On a more practical note, it allows you to change the type and creator of any file which can help you get around pesky problems when transferring files from other platforms.

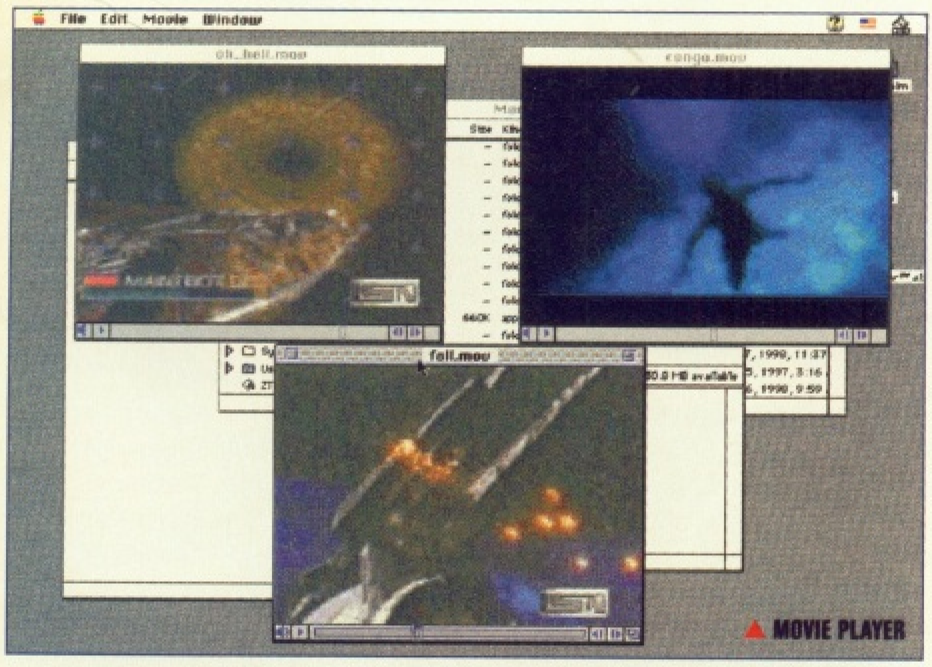
Acrobat Reader

The way to read PDF files, hands down. Like most Mac software, it's fairly intuitive to use.

Keep in mind that you can resize the window at will and use the magnifying glass at the bottom of the screen to render down the page to fit your window, if desired, or blow it up and scroll across.

Remember that there are "links" in PDF documents just like in a web browser – the open hand will change to a pointing finger on links you can click on.





▲ MOVIE PLAYER

MoviePlayer

For watching QuickTimes. Opening up a .MOV file will bring up a viewer window.

You can use the menu or keyboard shortcuts (Amiga 0, 1, 2, 3) to change its size or just use the mouse. The controls along the bottom let you play, pause, move forward or back a single frame, and, using the slider, skip to any portion of the video.

For a bit of fun you can set MoviePlayer to "loop forward and back" and skip ahead to the end of the video so it'll turn around and play it in reverse. Hours of fun.

ZTerm

A reasonably good term program which is comfortable to use because it doesn't constantly force you to act like a Mac user and beg it to do things for you.

It's speedy even on slower systems, automatically refreshes when you change window size, and you can just dial using direct modem commands if you like. The ANSI support is quite good as well.

JPEGView

You'll believe by now that it's basically just launching the program and opening a JPEG, right?

There are a number of options you can play with in preferences to control the quality of the display.

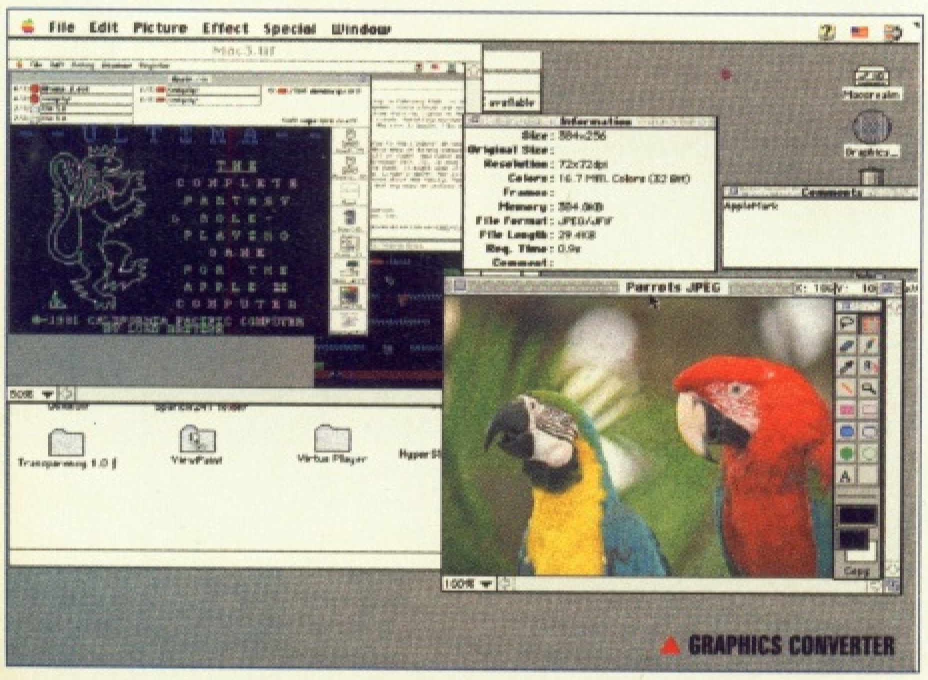
Keep in mind that because the Mac tends to use a single screen for every purpose, it has to change palettes on the fly if you do things like open up a bunch of JPEGs with colors not in your standard desktop. So, not every image may look right at the same time.

If you use a 24 bit desktop, however, this won't be a problem (You'll take a big speed hit, though).

Graphic Converter

A pretty decent shareware image conversion and basic image processing program.

It supports IFF as well as JPEG and a host of other formats, with a nice and fast work window.



▲ GRAPHICS CONVERTER

POVRay

The multiplatform public domain raytracer. We have Amiga versions too, but if you want to see how others are doing it and happen to like the way they added a Mac GUI (to the extent that there is one), it may be worth checking this version out.

Chuck's Printer Driver

Such a wonderfully compact and practical piece of shareware you'd swear it was written by an Amiga guy. The Mac's Chooser can be a wonderful thing and Mac printer drivers tend to be very good, but the problem is that they're all very picky. This becomes a problem for we emulators because we are not hooking real live Mac printers up to our computers. Chuck's Printer Driver solves the problem by being a generic interface for a variety of major printers.

The odds are that you'll either be using one of these printers, or a printer with a 100% compatibility mode with one of these printers. It's easy to configure, it's unobtrusive, and it's yours. This will likely be your one and only printer driver for your entire Mac emulation career.

File Buddy

File Buddy is another in that rare breed of Mac programs which gives you some real power over what's going on in the computer and in the filesystem.

Whereas Resedit is like a platform dive into the innards of a Mac file, File Buddy is more like a comfortable swim in the 4 foot depth – you can get totally wet but you're in no danger of drowning. The top use of File Buddy for most users will be to change the filetype and file creator tags.

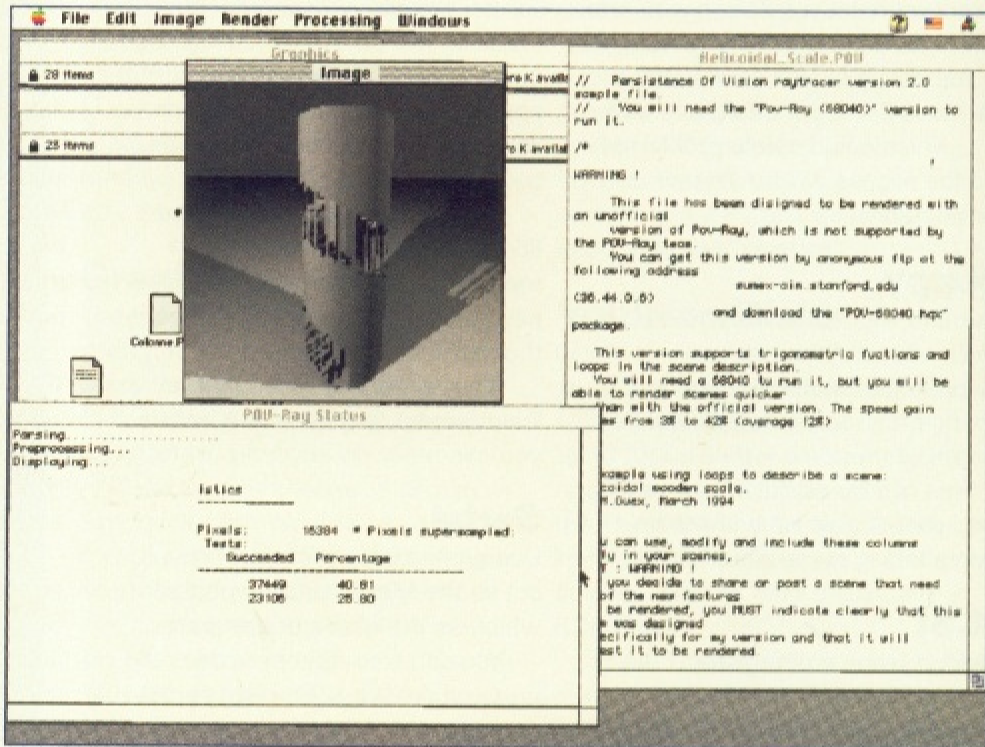
ShapeShifter's importation of files from AmigaOS leaves something to be desired, and sometimes it's difficult to tell a Mac app to open a particular file if the app doesn't feel it owns the file. By using FileBuddy's GUI, you can say "Make this file look like a Word doc" or "Make this file look like a JPEG" to various applications.

Particularly useful is to make files look like the executable binaries that they are – sometimes when you bring across a Mac executable, the system gets confused and thinks it's a text file, and will refuse to allow you to launch it.

By temporarily assigning the file in question the same characteristics as another random exec file, you can trick the system into letting you launch it. FileBuddy can also be a big help in conserving hard drive space. Mac programs like to stick sizable preference files all over your hard drive, and these of course don't go away if you trash the main program.

For a novice Mac user it can be hard to go through by hand and know what you can throw away and what needs to be saved – File Buddy will analyse preference programs to see if their creators are still on your drives, and if not will let you throw them away.

You will be completely amazed at just how fast and how much space also that these little buggers accumulate.



▲ POV RAY

Take it to the Macs!



Now you've got ShapeShifter from this months cover disks and CD, find out how to get the most from your free computer.

The Amiga is a wonderfully flexible computer. It can make beautiful music, take us to different worlds, and browse the web like nobody's business all before lunch. And in a smoothly multitasking environment, too.

It's so flexible, in fact, that it can be made to emulate different computers and even game consoles and arcade games. Of all the machines an Amiga can mimic, none work so well as the Macintosh.

Apple's earlier Macintosh machines, before their move to PowerPC, were based on the 68000 chip series, just like our Amigas. Through a little bit of software trickery, the Macintosh operating system (MacOS from here on in) can be made to run side by side with the Amiga's OS. This virtual Mac uses your Amiga's chipset or graphics card to simulate a Mac display, grabs a chunk of your Amiga's memory for its own, and can use your hard, floppy, and CD-ROM drives for its own purposes as well.

Because the Amiga spends very little of its time emulating a CPU (it just uses the Amiga's) or any sort of custom hardware (because, basically, the Mac doesn't have any worth speaking of), Mac emulations run very, very fast – more or less as fast as a real Mac would if you're using a graphics card. (More on system performance later)

Transferring the Mac ROM

For this tutorial, we will presume you are using Shapeshifter as included with this issue of CU. We will also refer to the Mac in question as "your Mac", on the presumption that you own one which you will use for this purpose. Shapeshifter can use the ROM from a variety of 680X0 Macs. If you are using an 040 or 060 machine, you should try to find a machine with a 1Mb ROM (in general, the newer machines). 020/030 users can and should use 512K ROMs to save memory.

NOTE: For those who will be using 1Mb ROMs, this procedure is substantially easier if you have a high-density floppy drive. For this to work, you will need CrossDOS installed and operational on your Amiga. (Drag PC0 into Devs/Dosdrivers. CrossDOS is so useful you should be running it anyway.) You will also need a blank MS-DOS floppy.

The Mac must be running some form of PC floppy software. Most Macs which are being well-maintained will automatically recognize a PC disk, just as a CrossDOS-enabled Amiga does.

1. From the Shapeshifter directory, copy the SaveROM.hqx program onto the PC floppy. Take the floppy to your Mac, and put it in.

2. Use Stuffit Expander on the Mac and convert the SaveROM.hqx program into SaveROM. Stuffit should handle this for you automatically (Stuffit is not a part of the MacOS, but it's as much an integral part of any Macintosh as LHA is for us. Odds are that your Mac will have it already installed.)

3. Run the resulting SaveROM program on the Mac. The output it'll generate is in German, but all you need to know how to do is recognize one word. If you DO NOT see the word "NICHT", click on the "Speichern" button. Now, you can save the "ROM Image" to your MS-DOS floppy disk. If you DO see the word "NICHT", it means that this ROM will not be appropriate for Shapeshifter, and you will have to seek elsewhere.

4. Take the disk back to your Amiga, and pop it in. Copy the file you just saved into the Shapeshifter directory on your hard drive. Rename the ROM image to be "Shapeshifter ROM", with the space, just like the icon file already in the directory.

... and how we do it

Mac emulators have been available on the Amiga for some time now, around 10 years. The first Mac emulator, A-Max, was a "better than nothing" Mac emulation. It recreated a black and white Mac which could run MacOS System 6, a single-tasking nasty little thing. It took over your Amiga, which meant you couldn't just flip back to the Workbench whenever you felt like it (in fact, you had to reboot). A variation on the theme, A-Max II+, was an internal card which allowed you to use Amiga floppy drives with the emulation. Mac double density floppies are the most evil format on the planet, so it required this card just to allow your Amiga's drive to read them.

For a long time, A-Max II+ was the final word. System 7, which multitasked after a fashion, came around, as did color Macs. It wasn't until Jim Drew and Joe Fenton came up with Emplant that colour Mac emulation, capable of running System 7 and capable of coexisting with the AmigaOS was possible. A-Max IV came out around the same time and offered some of the same features, but Emplant development soon shot ahead and A-Max faded away. For a long time, the Emplant software was tied to a Zorro card, which finally went away with the release of Emplant Lite. Emplant is no longer supported although you might be able to find a used board/software combo or the original Emplant Lite disks used. By the time its development ended, it was decent but flawed.

While Emplant still required the purchase of an expensive and largely deadweight Zorro board, a clever German student named Christian Bauer concocted Shapeshifter as a software-only Mac emulation. Shapeshifter did what everyone wanted in Mac emulation: multitasked with the Amiga, ran the important applications, and best of all was shareware, with a registration fee far less than the buy-in price on Emplant. You'll find Shapeshifter with this issue of CU. Mr. Bauer has largely moved on to other projects and Shapeshifter has not been updated for a full year, but it is still a capable emulation.

The latest arrival is Fusion, from the same team who brought us Emplant. Fusion got off to a shaky start but in its latest version has proven to be by many measures the best Mac emulator we've ever had.

What you'll need

To work their magic, all of the multitasking Mac emulators like Shapeshifter and Fusion require a small system patch in your startup sequence. This patch allocates a small portion of memory necessary to pull off the trick of running two operating systems at once. The other pieces to the puzzle are the Mac operating system, which like our own comes in two parts: a ROM and software. The software is easy enough to get – Apple even makes System 7.0.1, an early but serviceable version, freely available. The Mac ROM is a slightly different kettle of fish. Unlike the OS disks, it is not free for download or on the shelf of your local Mac shop. In order to run, Mac emulators need the data in the Mac ROM, but there's obviously no place to plug the ROM in on your Amiga.

The solution is to get an image of the Mac ROM to feed to the emulator. Technically, this requires that you own a Mac ROM. Since Mac emulation began, these ROMs have been alternately easy and extremely difficult to obtain through official channels.

The simplest solution is to own a Mac and take the image from it. While there have been no legal test cases to our knowledge, the best legal interpretation we can get is

Systems check

Running the modern emulators (Shapeshifter and Fusion) doesn't take a lot of hardware to get started, although the more the merrier.
Minimal practical system: 68020, 9-10Mb RAM total, 40Mb free hard drive space
Minimal recommended system: 68030/25 or better, 16Mb RAM, 100Mb free hard drive space, AGA or graphics card
Preferred system: 68030/50 or better, 16Mb RAM, 200Mb free hard drive space, AGA, Graffiti or graphics card, high density floppy, CD-ROM
Ideal system: 68060, 32Mb RAM, 300Mb free hard drive space, 24-bit graphics card, high density floppy, CD-ROM

Why high-density floppy?

A standard Amiga floppy drive, as found on most machines except the A4000 desktop and some A3000s, holds 880K of data, or 720K on a MS-DOS formatted drive. Macs, too, had drives like these which held 800K of data but for reasons understood only to Apple, the mechanisms changed the speed at which the floppy spun depending on the physical location of the head on the disk. This makes 800K Mac floppies totally unreadable by common Amiga or PC floppy drives.
When it came time for Macs to get high-density floppy drives and disk formats, Apple wised up and created a format which, with software help, an Amiga high density floppy drive can handle.
So, an Amiga user with a high density floppy drive can access Mac high density floppies, but not Mac double density floppies. An Amiga user with a double density drive cannot read -any- Mac disks. The only practical way to access a Mac double density disk requires A-Max hardware.
Not having access to Mac floppies may significantly limit your access to Mac software. You can use the Catweasel board to add a high density drive to your Amiga system. If you choose to forego floppy access, you will still be able to use CD-ROMs, but it is much more convenient to have both.

that if you own the ROM, you can use its data on whichever machine you choose provided you don't use it on multiple machines at once.

Follow the instructions in the Mac ROM panel to get the ROM image from your Mac to your Amiga.

You're now done

If you DO need the 1Mb ROM image but DO NOT have a high density floppy drive, this will not work as written, since the low density MS-DOS disk format is only 720K in length. You have a few options in this case.

1. Run out and buy a high-density floppy drive or a Catweasel: It's the most expensive option in the short run but it's also the most useful, as your 880K Amiga floppy will be totally useless under Mac emulation but the high density floppy will come in handy, both for your Amiga and the Mac emulator.

2. Compress the Mac ROM image on the Mac with something you know you can uncompress on the Amiga, like LHA or Zip: The problem here is that not every Mac uses LHA or Zip, so you may not have these files installed. You can also potentially hit a snag if the compression program mucks around and "Macifies" the file too much, adding extraneous junk which will confuse the uncompression program on the Amiga.

3. Transmit the ROM back to your Amiga via a pair of modems, or a null modem: This can get tricky because the Mac likes to screw around with files it transfers. If you choose this route, be sure you tell the Mac term program explicitly to transmit straight simple binary (not MacBinary or any other such nonsense).

It's really far better just to bite the bullet and get the high density floppy.

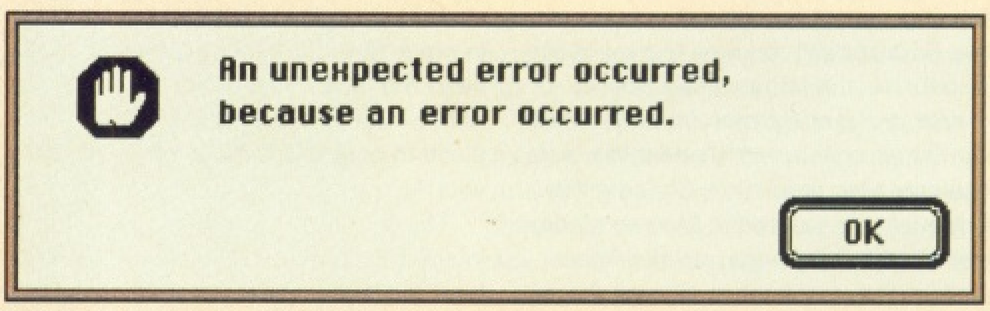
Traitor!

But wait a second. Aren't you reading month

Mad Macs

There are plenty of reasons for wanting to emulate a Mac, a little experience with one will make you appreciate your Amiga more than ever.

- **Macs don't respond to disk eject buttons. In fact 'real' Macs don't even have them at all! Before you can have your disk back you have to drag it into the Trashcan. You might even find the Shut Down option refuses to do so unless you first insert a previously used disk. Once you've given it the disk, it will spit it out again like an angy baby, then go to sleep.**
- **Macs have no shell. You will soon be screaming for a chance to open a shell or a command window, I assure you.**
- **The Mac insists on assigning a filetype to everything on its hard drive. This is convenient because you can click on any file and, in theory, bring up the application which created it. In practice, it means that applications which should let you try to open a file will refuse because the file in question may not look like the right sort of file.**
- **If the Mac asks you for a floppy, and you don't have it, you're screwed because the disk requester freezes all other tasks!**
- **Mac 'multitasking' isn't as user-friendly as Amiga multitasking. There can be huge delays between task switches, and sometimes a task will occupy the system for so long it's impossible to tell if the machine has crashed or if the computer is just thinking really hard.**
- **When a 'real' Mac locks up and you're forced to remove the power supply to restart, once it reboots it tells you off for not using the software reset.**
- **A typically useful Mac error message: "There was an error"**
- **Here's another favourite: "The application 'unkown' has unexpectedly quit"**
- **You have to tell the Mac how much memory an application is going to use before you use it. If it needs more than you've given it, you have to restart.**





▲ Illustrator Interface, design work courtesy of Adobe Illustrator.

after month in this very magazine – in editorials, in reviews, in letters – that above all else we need to support Amiga hardware and software manufacturers? By using Mac software, won't it be hurting the Amiga market?

The short answer is "no." For starters, you're still going to be using an Amiga – and odds are, you'll continue using AmigaOS for the substantial majority of your computing tasks. Similarly, that's where you'll continue to spend your money. I'm one of the biggest emulation buffs you'll find but I still invest most of my time, energy, and resources into the Amiga.

There's virtually no Mac hardware that you can hook up to your emulation system. If anything, getting involved with Mac emulation will only encourage you to buy more Amiga specific hardware (like a faster accelerator) or platform-neutral hardware (a CD-ROM, a bigger hard drive, more memory). And as for software – there are titles and applications you can run under the MacOS that you can't under the AmigaOS.

For whatever reason, the Amiga market has not provided it. You might turn to your Mac emulator to fulfill those occasional tasks, but if experience is to be any guide, you'll continue to turn to Amiga vendors for software solutions as your first option whenever possible.

Macs power

To know what to expect from your new pseudo Mac, we should take a look at how your Amiga's hardware comes into play from start to finish.

We've already established that CD-ROMs and high density floppies are A Good Thing. The Mac emulation will address your serial and parallel port as the "modem" and "printer" ports of a Mac, respectively, and you can take advantage of any sort of third-party add on serial/parallel boards you might have. As for memory, aside from "the more the merrier", you can only pull memory for the Mac emulation from a single bank. If you're using most A1200 expansion boards this isn't a problem because you have only one SIMM slot – make it at least a 16Mb. If you're using a board with more slots, like most A2000 or 4000 boards, your mileage will vary. On boards such as the Cyberstorm Mark II, any combination of SIMMs is automatically mapped into a single bank. On others, you may have to ensure SIMMs are paired and of the same size in order to be counted as part of the same bank.

That leaves just the two most important considerations: CPU power and graphics speed. The former case is mainly good news, the latter is mixed.

The nice thing about your CPU is that, for all intents and purposes, it will process Mac applications as fast as a real Mac with the same CPU would (And for 060 users, you can boast having a Mac faster than any 680x0 Mac Apple ever produced since they never used 060s). A caveat here is that for best performance, you should try to have a CPU with an MMU (rather than EC processors).

As for graphics, well, the ECS and AGA chipsets have been much maligned as of late and this will have to be another case. As wonderful as they are for some applications, they're not as well suited for the rigours of Mac emulation which involves the same sort of "chunky" pixels that cause headaches for 3D game programmers. For black and white operation, emulation is blindingly fast, but if you try to throw it into 256 colors, you'll notice some considerable loss of performance. There are two ways around this.

1. Buy a graphics card. Beg, borrow, or steal to tower your A1200 if you haven't already, fill the Zorro slots in your big-box Amiga, whatever. All but the most obscure cards are supported by both Shapeshifter and Fusion, and just about anything gives you better performance in 256 color mode, not to mention bigger resolutions and higher colour depths (the Mac can operate in 16 and 24 bit mode)

2. Use the ECS/AGA graphics access enhancements for Shapeshifter (Fusion also has special modes for this purpose). These third party addons, called EVDs, allow you to make modest gains on the speed of Mac display using Amiga chipsets by gobbling up tons of memory. If you choose to go this route, then, you'll probably need to make an extra investment in a new SIMM or two.

Justification

There are some solid, tangible good reasons for having a Mac at your disposal. In no par-

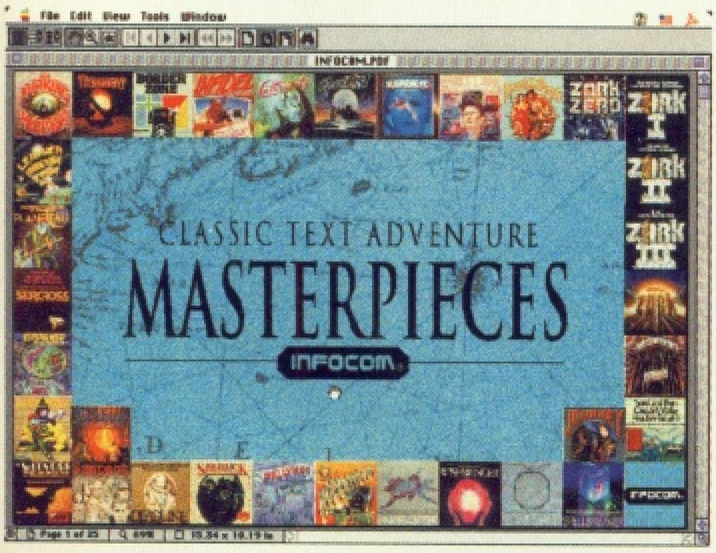
ticular order, here's just some of the gains you'll make by setting aside a few measly hundred Mb of hard drive space and investing a little time in getting your Amiga Macified:

Access to the Adobe Acrobat PDF document format: A couple of years ago, the people at Adobe came up with the "Portable Document Format" which was a way of embedding graphics and text, along with a basic hypertext/page selection system, into a single file. It's basically a redress of Postscript. It's also become very pervasive in the world at large – a number of companies which provide downloadable documents, ranging from printer manuals to train schedules, do so in PDF format.

While it's not strictly true to say that there is no PDF support on the Amiga, what we do have is in the form of ported Unix utilities which leave a great deal to be desired (Ghostscript and xPDF). Adobe does not support the Amiga, unfortunately, with its Acrobat Reader program. But if you can just flip over to the Mac side and load it up, you gain access to a lot of documents that would have been closed books otherwise.

Full access to Mac CD-ROMs: The Mac uses a custom format called HFS for its floppies, and this format is often employed on Mac CD-ROMs as well.

Not every Amiga is equipped to read all the goodies on an HFS CD, but if there's data (pictures, audio clips, video clips) on the CD you'd like to have access on the Amiga, you can just go through the MacOS and then use the emulator to shuttle the data

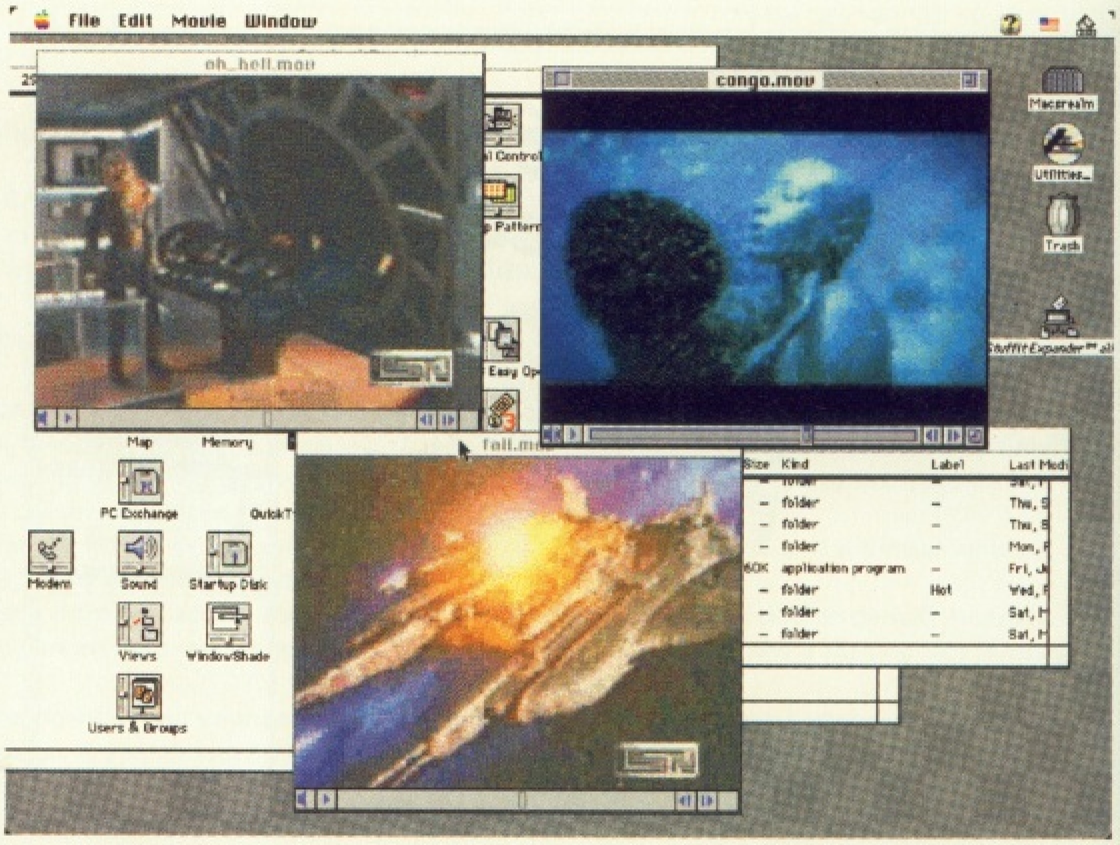


▲ Adobe Acrobat in action.

across to an Amiga partition.

Get the most out of your Amiga: OK, so you've invested some real money in your system, right? Why not push it to the max and get access to absolutely as much software as you can without going out and buying another system altogether?

See QuickTimes as they were meant to be seen: Granted, CyberQT is starting to catch up, but QuickTime originated on the Mac, the movies are of far better quality than AVIs and require less overhead than MPEGs. They're really quite nice, and if you view them through Mac emulation you'll get a much better idea of what everybody's on



▲ Watch a QuickTime or three.

Mac in a minute

A full tutorial on the MacOS is outside the scope of this article, but since we're getting you into this mess, here's a quick look at the basics.

- **Remember that 95% of Macs have mice with just one mouse button – so just use your left mouse button for everything.**
- **You can roughly think of the MacOS as AmigaOS, with all of the shell and CLI access removed, more idiot-proofing, and a lot of possessiveness. When you drag the disk icon into the Trashcan to eject it, you can then remove the disk or CD without the OS getting confused.**
- **The "Apple" menu is a sort of "Tools" menu, where you find a bunch of programs you can quickly launch. It is also where programs tend to put their "About" window command. The File, Edit, and View menus act much like you'd expect, although keep in mind that in the File menu is the very powerful "Find" command. The Label menu is just for pointless eye-candy tagging of files. In the "Special" menu you find the very important "shut down" command. You have to ask MacOS for permission to shut it off. Doing this will kill the emulation cleanly.**
- **The upper-right hand icon, which starts out showing a little Mac, is the task menu. This is the analog of our screen-flip gadgets, and lets you pick which program to bring up to the front.**
- **Many Amiga programs give you the option of opening on the Workbench or on a separate screen. There's no such thing as a separate screen for the Mac—virtually everything opens up on the Finder screen in a window. You can hide windows using the task menu, or drag them almost entirely off the visible screen.**
- **Real Macs can change resolutions more or less on the fly as the Amiga can, although under Shapeshifter you are stuck with the single resolution you select before launching the emulation. Fusion acts more like a real Mac in this regard.**
- **Mac keyboards are a bit different than Amiga keyboards—they can have 12 (or more) function keys, PC-style editing keys, and other stuff. Most important to remember is that your left and right Amiga keys act like the "four-leaf clover" symbol key as you see for keyboard shortcuts in menus.**
- **The Apple menu has a lot of what you'd expect to find in an Amiga's Prefs directory. The Control Panels window has most of the goodies, while the Chooser program is more or less your printer selection window.**
- **Using your Amiga's SCSI port, you can attach a number of common peripherals like scanners and ZIP drives and use them on the Mac side as well.**
- **Software that was not written to be 32-bit clean will not work under Mac emulation most of the time. (This includes a lot of software from the 80s, before the Mac went to System 7.)**



▲ Photoshop interface, Blue Steel Promotional flyer, courtesy of Peregrine Creative Design.

about when they say they want a full, real implementation of QuickTime on the Amiga.

Access to mainstream applications: It's a sore subject, but there simply are times when nothing but PageMaker, Wordperfect, Word, etc. will do. If nothing else, it'll let you take a little more work home from the office than you might have been able to before without having to put a whole new system on your desk.

Other emulators: Running an emulator through an emulator isn't a ridiculous prospect in this case. In particular, the Mac has better Sega GameGear emulators, has an Atari ST emulator that at least works, and other neat little emulators like the Apple I.

More games: last November we ran a feature on Mac gaming, and everything we said then is still true. While we've been getting some top-rank commercial ports lately, not everything which the publishers gave the Amiga a miss on will get retroactively ported, and Mac emulation is a great way to fill those gaps.

The Future

Mac 680x0 machines are out of production, but there are still an awful lot of them out there, so software continues to be released which supports them – although the numbers are diminishing.

Already, MacOS 8 has upped the ante and eliminated a number of 680x0 Macs from the compatible list (including, by the way, the hardware that Shapeshifter emulates. Fusion can be made to work with MacOS 8.) There's still 14 years of development to explore before you have to worry about what's being released now. Fusion is supposed to get PPC support, allowing us to emulate PowerMacs – and then the floodgates open once more.

Mac by public demand

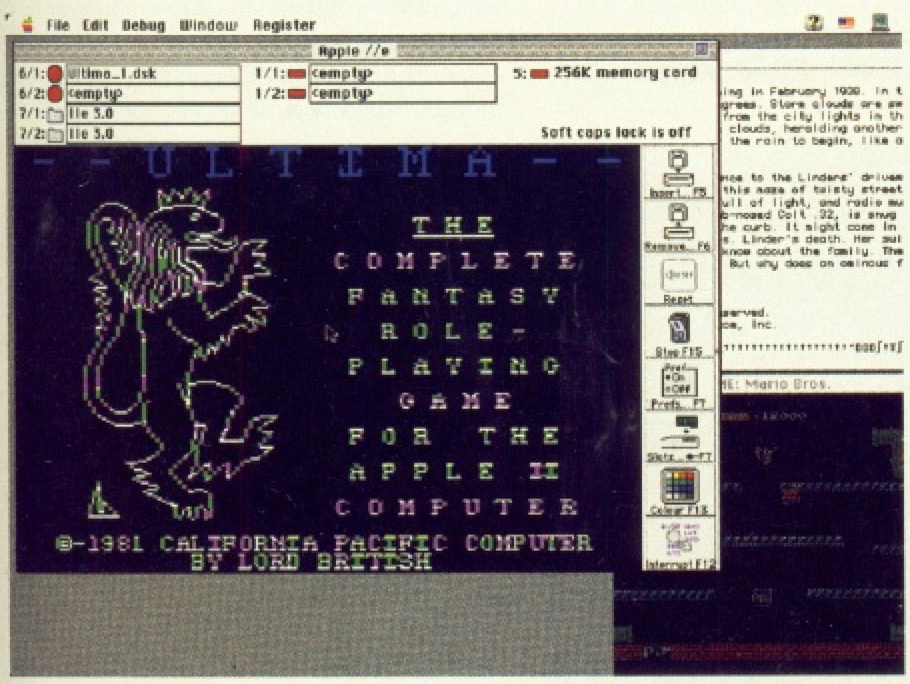
The shareware version of Shapeshifter only allows you to use filedisks – large AmigaDOS files which simulate real hard drives. You'll want to assign a large number of buffers (addbuffers 500 or so to the drive the filedisk is on), and even then, filedisks are very slow. Using real devices or partitions is much, much faster – don't be turned off by the speed of your emulation with the filedisk, because it's not a true indicator.

If you get enamoured of Mac emulation and want to take the plunge, you'll have to decide between registering Shapeshifter or buying Fusion.

Shapeshifter is cheaper, but the author has more or less suspended development, and has been very slow at times about sending out keyfiles. Fusion might seem pricey by comparison, but you get a more actively supported product, and Fusion's Amiga/Mac file sharing is superior to Shapeshifter's.

Either way you go, you'll be getting a full-blown Mac under the bonnet. We can't make any guarantees as to your personal performance, but we can assure you that your Amiga won't mind or get too crowded.■

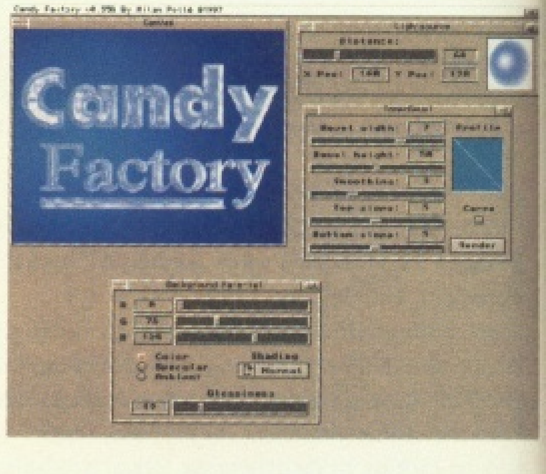
Jason Compton



▲ 3 emulators running under another emulator.

PowerUP Update

At last the decision has been made. We take a look at the consequences of the choice by Amiga Inc to officially go with a 680x0 and PPC dual processor solution.



▶ **Candy Factory, from PPC enthusiast Milan Polle. PPC support is coming in thick and fast from the Amiga's unparalleled shareware/small development community.**

Now that the PowerPC has been named the official next-generation CPU of the immediate future (and not for the first time, mind you), Amiga punters and pundits have scrambled to make sense of the announcement. In last month's CU you read the Q&A released by Amiga, Inc. engineer Joe Torre, the same document spread far and wide all over the Amiga world. But that document itself raises questions and demands clarity, so we've spent the month tracking down answers and informed insight on what the announcement means.

The proverbial horse's mouth in the form of Mr. Torre was quick to point out that while the immediate roadmap calls for a PowerPC/680X0 processor combination, phase 5's CyberStorm and Blizzard PPC boards would not be the first and last word in PPC/68K computing for Amiga users. This is good news for potential users of machines based around new developments like the BoXeR motherboard, which has a custom slot for PPC expansion, but is not equipped to accept A1200 or 4000 boards, and good news for companies such as ACT and Ateo who have expressed an interest in producing alternative PPC solutions. Presumably, phase 5 and other interested PPC/68K manufacturers will work with Amiga, Inc. to come up with an OS and software development standard which will be compatible across a variety of hardware.

Torre also re-emphasised that this decision does not exclude AmigaOS development for other CPUs. The PPC/68K combination is rightly seen as the option providing the greatest compatibility along with a strong speed growth path into the future, but other processors can be explored by companies with AmigaOS licenses.

If you were holding out for a different sort of solution – say, that proposed by HiQ and their Project Alpha – all is not lost or written in stone. Such projects will continue, provided the companies make the necessary arrangements with Amiga, Inc. and consider their plans to be viable. In the specific case of Project Alpha, compatibility issues will be met through software emulation, and through the use of the InsideOut hardware.

Markus Nerding, Haage and Partner
"No other processor would have made sense."

Project Alpha Amigas are likely to be at least as compatible with future PPC Amigas as the Draco is with today's generation, and AI have assured HiQ that they remain interested and keen on the Alpha project.

There have been widely varying opinions on the move, with many technically oriented users concerned that the two processor combination is not an ideal one, and some more excitable types mailing posts on the Internet decrying the Amiga's doom as a result of tying itself to the old technology of the 68K. Much of this was caused by several confusions that arose from assumptions and misreadings of the original statement.

One concern was that AI was tying the future of the Amiga to a single third party company, but this stemmed from a simple misreading of the situation – or a misreading of the text. As Joe Torre has subsequently pointed out, PowerPC does not mean PowerUP. PowerUP is just the first product of this type to hit the market – as Joe put it, the right place at the right time.

Much of the remaining concern stemmed from people who felt that it was suicidal to move a computer by evolution rather than revolution. People at the sharp end of the industry who we have spoken to have been universally positive – even relieved – at the decision. There is simply no other way in which the Amiga could gain modern computing power without fracturing the market even further, something which it is generally thought the Amiga could not survive.

The Emulation gap

The example of the last personal computer to make the transition from 68K to PowerPC, the Macintosh, indicates that emulation of the 68K processor is possible. That it has not been selected by Amiga, Inc. concerned a great many people. One of the company's chief goals, however, is compatibility. 68K emulators do exist – phase 5 had one running, but were unable to achieve a compatible and acceptably fast implementation.

The Mac community also suffered a great deal of disappointment when they found that their PowerMacs were substantially slower at running their existing applications than their old 030 and 040 machines had been. As CU Amiga's informal Duke

Nukem 3D benchmark showed, even today PowerMacs have difficulty achieving 040-level performance. Any current 060 user would significantly sacrifice performance by moving to an emulator, and many older but none the less very useful software packages are out of development, meaning that PowerPC aware versions will not be forthcoming. So, Amiga Inc. decided to co-opt the phase 5 dual processor approach.

This does not rule emulation entirely out of the question – there are strong indications that a well-known Amiga software house will be unveiling a 68K emulation to allow a single PowerPC to drive both PPC and 68K applications. Indeed it seems fairly inevitable that before too long someone will launch an Amiga system based on PPC and software emulation only, especially as the speeds of PPC chips grow to – and through – the 1000 MHz barrier. 68K plus PPC is not a perfect way of working technically, being something of a solution to keep the market going now.

Emulation and a native PPC Operating system would eventually, on faster PPC processors, replace the dual processing solution. As Haage and Partner's Markus Nerding put it; "It costs more money to produce a board with both processors... with these dual processor boards you have to do a lot of work to get a good result".

On the other hand the dual processing approach raises the very attractive notion of multi PPC processing – phase 5 have already talked about a board with four PPC chips on it, which would run at positively frightening speeds.

What's available today

Already, commercial applications have offered PPC support, such as Wildfire, Personal Paint and Reflections. Many other developers have signed on with promises for PPC: such titles as Cinema4D, the Mac emulator Fusion and the PC emulator PCx, and of course ClickBOOM for Myst and Quake.

The tradition of freeware and shareware has migrated to the PPC. A variety of tools and programs ranging from fractal eye-candy to the Amiga emulator UAE, along with tools for cracking the RC5-64 algorithm and playing back and even creating MPEG video and audio. Here's some software out now or due very soon which supports PPC.

- AK datatypes
- ArtEffect
- ArtStudio
- Benoit 2.5PPC
- Burn IT
- Candy Factory
- CreateMPEG
- CrystalspacePPC
- Cybergraphics
- DescentPPC
- Elastic Dreams
- FastviewPPC
- GNU C
- iBrowse
- ImageFX
- Isis
- LWShow
- Music In
- Oberon2
- Picture Manager Pro
- Plane 1.4
- POV
- PPaint
- PreludeAMP
- Qbist PPC
- Quake
- Reflections PPC
- RTGMaster.library
- SAS/C
- StormC
- SuperviewNG
- UAE PPC
- VBCC
- VDoomPPC
- WarpUp
- WildfirePPC
- ZhaDoom

Wolf Deitrich, phase 5

"...[this is] the best solution to move forward the Amiga Technology today, without leaving the installed user base incompatible with a new product generation."

Developer issues

In order for there to be PowerPC aware software, the developer community needs to be equipped to create it. Already, a number of major C compilers support the PPC.

From the outset, Haage and Partner worked to make their StormC package PowerPC ready. Storm uses H&P's "WarpUp" OS layer for talking to the PowerPC boards. This method is different from the system phase 5 prescribes, which has caused some angst between the companies and amongst the userbase. To break the issue down succinctly, the WarpUp library system approaches the switch between the PPC and 68K processor differently. This makes for what can be very fast operation compared to the phase 5 approach. phase 5's library system is on the other hand better suited for multi-processor expansion into the future, allowing Amiga users to potentially realise massive gains in computing power over the current generation of PPC cards.

For phase 5-aligned developers, the major choices are between GNU C and SAS/C. GNU, the free Unix-derived compiler maintained by many including Fred Fish, is very well suited to bringing other Unix and GNU tools across to the Amiga, and as such many of the first PPC programs to emerge have been of Unix origin. SAS/C is still considered by many professional Amiga developers to be the ultimate word in C on the Amiga.

While the SAS Institute dropped official active support a few years back, a few dedicated Amiga SAS engineers have kept the flame going and have enhanced SAS with PPC as well as C++ capabilities. This news fuelled a wave of purchases of remaining SAS/C stock, and the company has now sold out of its remaining copies.

It remains to be seen how this situation will develop – many programmers would like a chance to use SAS/C with the PPC but with no presently available copies, they are left with a choice between GNU C, VBCC (another free C compiler which works with phase 5 libraries), or the WarpUp StormC solution.



▼ Elastic Dreams, from Motion Studios – PowerPC software due in for review next month.

PPC for the masses

phase 5's fairly aggressive pricing, particularly on their A1200 models, means that PPC/68K accelerators will not be strictly for the upper echelon of Amiga users. An entry-level Blizzard PPC board with a 160 MHz PPC 603e and 25 MHz 68040LC will run for £240 inclusive of VAT, with options such as a faster PPC, faster 040 or 060, and SCSI controller available.

The CE approval for desktop machines is also a saving for those who might otherwise have had to tower their Amigas in order to add a PPC board. Initially, phase 5 feared that they could not officially approve of the use of the boards in A1200s still in their original casing.

Due to power demands by the two CPUs, however, you may want to re-explore your tower options when picking up a PPC board. Tower cases supply an inexpensive and very beefy power supply as well as additional room for expansion, which you might be inclined toward after strapping a rocket engine onto your machine.

Following the news, the Amiga community has been gearing up for the future. With the uncertainty finally gone, Nova Design, the publishers of ImageFX and Aladdin 4D, say they are very much in the thick of PPC Amiga development despite not presently having a PPC upgrade to their products available. They were confused by the phase 5/Haage and Partner dispute and did not want to make any moves with their programs (which are written in SAS/C) until there was more clarity. Now that the PPC module has been released for SAS, the company says that all of the products they sell will have PPC support.

Kermit Woodall, VP of Nova Design, went on to comment on Amiga Inc's selection of the PPC/68K solution; "I've always thought it was the best route. I thought it was the best route when phase 5 first proposed it. I remember what Mac users went through – they were very upset that they'd just bought these new machines but the emulation was running all their software slower than it was on the old computer". ■

Jason Compton

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Millennium Bug

With Doomsday fast approaching, otherwise known as January 1st 2000, can you be sure your Amiga is safe from the Millennium Bug?



Got a minute? Have a quick look at the plastic you carry around with you. Check your debit or credit card details. Pay particular attention to the expiry date: does it say something like 09/98? Whoops - your card isn't Year 2000 friendly. In fact, if your bank doesn't catch a grip and update its systems, there's a good chance that on Monday 3rd January, 2000 you won't be able to take any money out of your account. In fact, according to the bank's computer system, you aren't due to be born for another forty years.

Contrary to popular belief, the biggest Millennium problem isn't about whether it begins on the first day of 2000 or the first day of 2001, but whether any computer systems are going to be left in a working order after 1999. You might think the "Millennium Bomb" problem is all hype, but it's not. It's estimated that it's going to cost $600 billion worldwide to sort it out, and yes: it's going to affect you and your Amiga too.

To understand why computers aren't going to enjoy the New Year celebra-

tions, you've got to look at how computers store information. Specifically, you have to examine how computers deal with dates. The best way to start is to look at how the humble PC is going to have big problems.

PC problems

The PC's date dilemma is due to the BIOS – the Basic Input/Output System. On a modern PC, the BIOS has a number of duties. It looks after the disk drives and various peripheral buses, it operates the serial and parallel ports and most importantly of all, it contains the Real Time Clock.

The RTC is a piece of electronic circuitry which "ticks" at precise intervals. At each tick, an entry in the PC's CMOS memory is incremented. The CMOS memory is very low power memory, and it contains information vital to the PC, such as the hard drive configuration. It also reserves a few bytes for the date and time. As the computer boots up, the operating system (Windows, DOS, Linux and so on) obtains the current time from the CMOS and uses this to set its own software clock.

The problem is that there is a flaw in most computer BIOS programs. Although there is a byte of data reserved for storing the century date (currently '19'), this byte is frequently not updated. So, at the end of 1999, when the time clicks on and the century moves to 2000, the '19' will remain at '19'. The year value in the CMOS will then become '1900'.

If the computer is running at the time of this year change, nothing much will happen. As the computer is running, the operating system's real-time clock will be in charge. Practically all the operating systems in use will happily move to 1/1/2000 with no problems. However, when the computer is switched off and rebooted, the problems begin. As the operating system starts up, it looks in the CMOS for the time and date. It discovers that it's now the year 1900. This is clearly not possible, and many operating systems default back to a date in the 1980s.

As the operating system is now telling all its applications that it's 1980, chaos can follow. Many, many PC applications require the current date in order to operate. Invoicing systems, databases, appointment calendars – they will all be totally confused. Programming tools and file utilities which look to file creation dates won't work properly. Some background tasks such as disk maintenance and automatic backing-up could fail: potentially the PC's hard disks could be re-formatted by an over eager utility.

That's not all though. Even if the BIOS in the PC's computer is smart enough to update the century byte to 20, and the operating system gets the correct date, there is no reason to assume all software is going to continue working as normal. Many application programs were written expecting the year to begin with '19', and simply don't allow it to be changed. Any program which

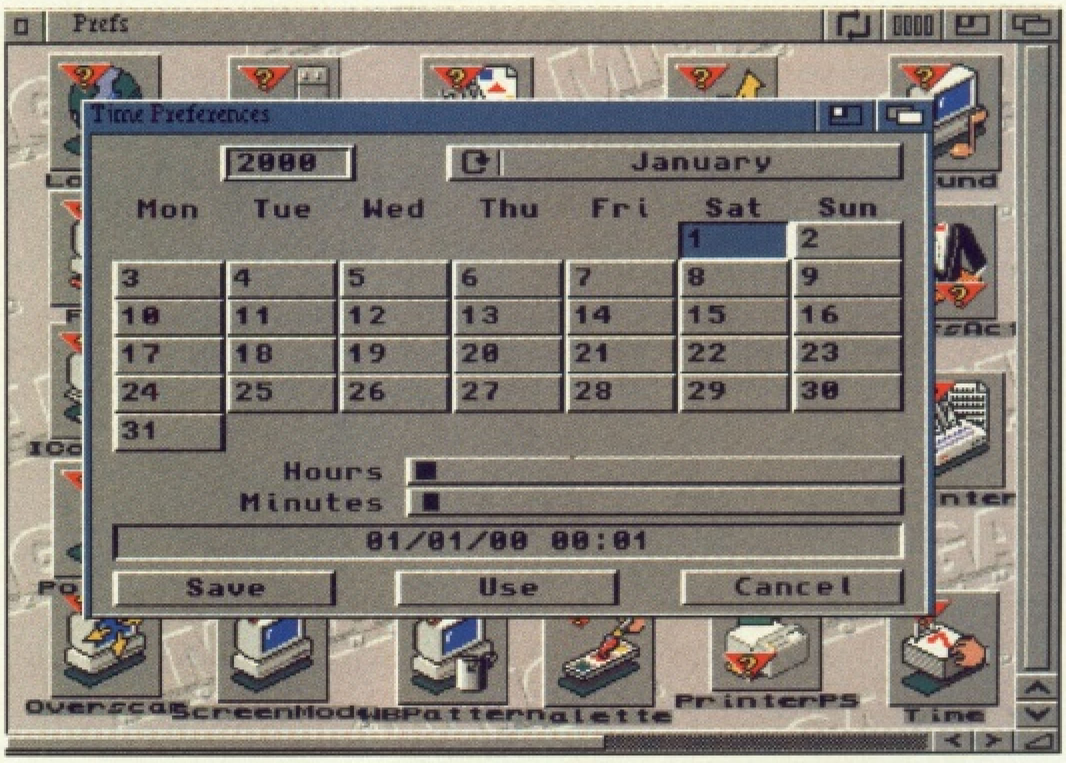
Amiga Millennium Bugs

Datestamps

The Amiga stores the dates associated with files as two digits. In the new years ahead, files will appear with creation dates of 10-Jan-00 and there will be no way of telling these apart from files created on 10th January 1900.

This means that the List command options such as 'since' and 'upto' will no longer work, until all your files are updated to the new century. This could potentially create problems for backup programs and development systems, which use the datestamp to determine which files are the most recent.

Specific applications that won't work include Final Calc, which won't accept dates with years of more than two digits. You can enter 00 for 2000, but when sorted, this will appear before any other 19xx dates. Dates can be displayed in two or four digit form, but only dates from 1900 to 1999 will be accepted. Other potential failures are any packages that use time and dates to sort or process data. That includes email packages and Internet software too.



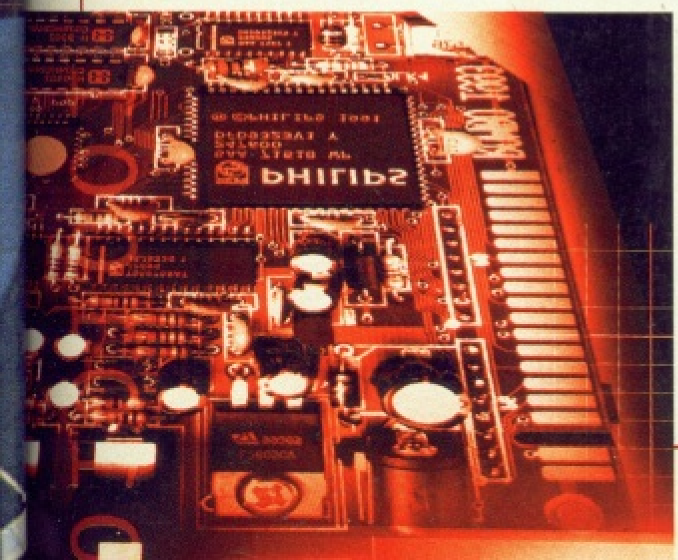
What's the problem?

In a nutshell, some computers and programs store dates in the form dd/mm/yy instead of dd/mm/yyyy. For example, a computer would store a date as 5/1/68 instead of 5/1/1968. This means that at the end of 1999, the same programs will start storing dates such as 5/5/0 and 10/12/12. By skimping on those two extra digits, programmers could write programs which ran faster and took up less memory and storage space. This might seem only a slight inconvenience, until you remember that when working out calculations based on dates, the computer will get them wrong if it only deals with two digits per year. For example, I was born in 1967, so a computer can work out my age by subtracting 1967 from 1998, which leaves 31.

Now let's now assume the computer program is working out how old I'll be in the year 2010: 2010 minus 1967 equals 43. Yes, frighteningly old. Now the bad news. Forget those extra two year digits, and you see that 10 minus 67 makes -57.

The computer thinks I'm -57, or that I won't be born for another fifty seven years. It's not only ages of course: tax calculations, salary payments, mortgage calculations: they all depend on calculating the difference between two dates.

If they all get it wrong, there could be chaos in the years to come. Any system which stores only the last two digits will get things wrong: they'll assume 2010 came before 1980, and they will not be able to count the number of days that are in-between.



only reserves two digits to store the year instead of four, can fail. Even software from big name companies has been found to fail. You might think that software updates will have fixed all the problems: think again, as a large number of companies are still using Windows 3.1 and applications which are years old and totally non-Millennium safe.

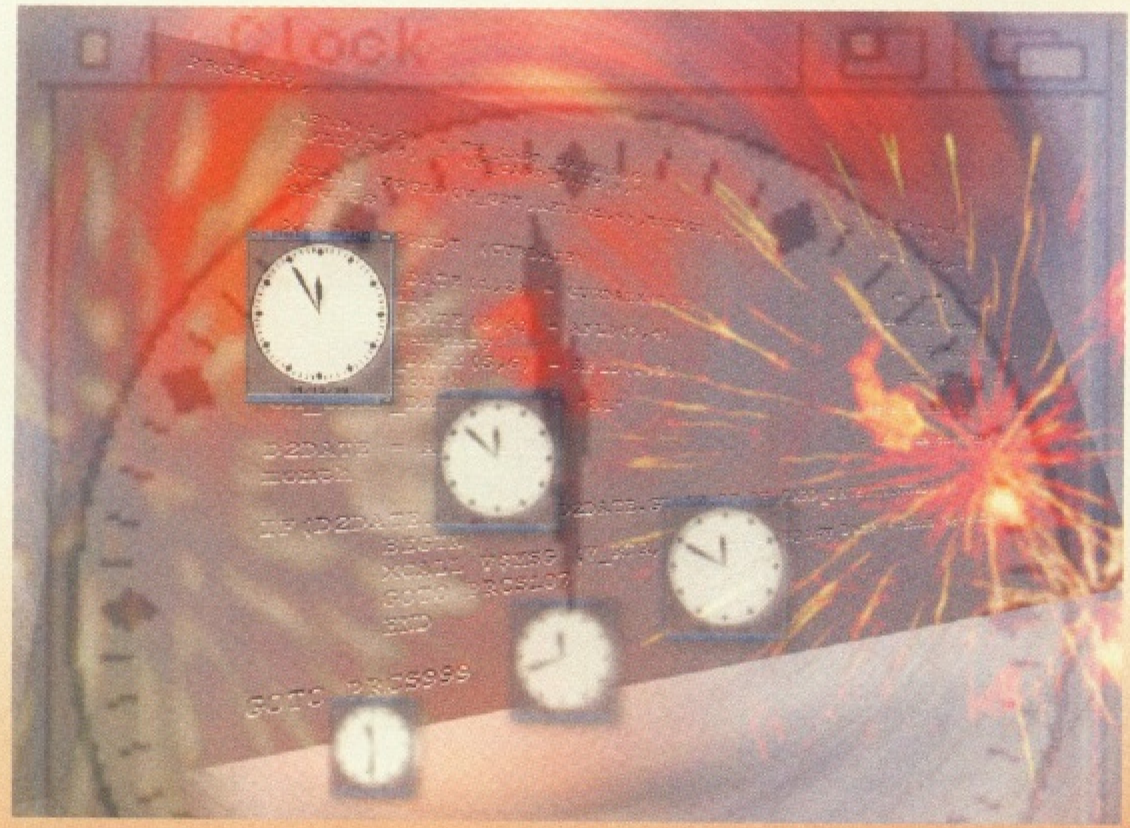
If you happen to work with PCs, make sure your system administrator is planning for the Millennium, or you'll find that when you come back to work on Monday, 3rd January 2000 you'll have a lot more work than you bargained for.

Non-PC problems

All this would be bad enough, but as we all know the PC isn't the only computer system on the go. Companies who need to deal with millions of transactions often have large mainframe computers installed. The applications written on these computers were often written in a language called COBOL (which stands for Common Business Orientated Language). COBOL is quite a dinosaur now, but was considered very capable for developing applications until very recently. COBOL contains many instructions for dealing with huge databases, searching and dealing with different fields: everything which a large company needs.

The problem is that many COBOL programs were written with absolutely no thought that they would still be running in the year 2000. As such, many programmers made the mistake of storing only the last two digits of a year. You can bet that somewhere, there is a vast database which contains your name, address and details. And you can further bet that this database is storing the year of your date of birth as '67' or '74'. What happens when children born in 2002 are entered into the database?

There is no real way of knowing how many computer systems are going to be affected by this kind of bug.



Is the Amiga immune?

The Amiga doesn't have a separate BIOS and operating system; both are integrated into one and the same. It does however have a real time clock: at least, the A4000 and other 'big box' Amigas certainly do. The A1200, and the A500 and A600, models don't have a clock as standard: when you switch them on, the computer doesn't know the time and defaults to a 1980's date. Perhaps for this reason, there are few utilities on the Amiga which react critically to the time.

Of course, the A1200 and other systems can easily have a RTC module added. Usually, the RTC is built onto a memory expansion or accelerator card. If you look at an expansion card and see a flat silver disk about the size of a penny, you're looking at the battery used to back up the CMOS memory which stores the current date and time. Setting the time on the Amiga is a matter of using the Time Preferences program: when saved, the time will be correct (to within a few seconds), and more importantly, stored correctly. The Amiga stores years properly and Workbench will always know of the correct time.

However, all is not well. AmigaDOS was developed separately from Workbench, and it uses a two digit year counter. You can see this action by looking at the output of the LIST command. Every time a file is created or written to, a value called the "datestamp" is updated to the current date. Sadly this information is stored using only the last two digits of the year. Some software will look at the datestamp, and it's these programs which will misbehave.

There are also cases of sloppy programming. Several programs will not accept any date entered which isn't in the range 1900 to 1999. Some programs will accept two-digit dates, but will assume that everything is still in the 1900s. This can cause problems with sorting and calculations.

If you are using an Amiga based system for accounting or storing important dates, it is vital that you check now to see if your application is Year 2000 compatible. Try creating a new record with a date after 1999. If your application doesn't accept it, you'll have to try and find a solution to the problem – and that could mean contacting the software publisher for a fix or moving to another application altogether.

It's bigger than the Amiga

Even if you've checked, fixed and replaced all the time-dependent software on your hard drive, that doesn't necessarily mean your Amiga will be 2000 bug-free for the rest of its life. At least, not if you're connected to the Internet. Once you hook up to another system, as you do so when using the Net, all your file transfers via that system are subject to any 2000 bugs that are still present in that system. Seeing as files sent via the Net can

So fix it!

Now that we know the problem is due to storing years as two digits instead of four, the temptation is to say "fix it – how hard can it be?" The answer is "very hard indeed".

Assuming you have the source code to a computer program, it's not an easy task to look through it all and change every single date calculation. There may be millions of lines of code which need checked. And then there is the matter of all the databases which already exist, and need changing to reflect the new year data.

If you don't have the source code, then the problem is a thousand times worse. It's simply not possible to search through a program and squeeze a few extra bytes into place. Programs depend on certain functions being stored at certain locations – if you bump everything up to make room for two extra digits, you turn everything which comes after the changes into a load of digital garbage – and that still makes no attempt to alter the logic required to deal with four-digit dates.

Embedded applications are also almost unchangeable too. If your video recorder stores information about the date, you can bet that it's running a program which is stored in a ROM somewhere. How are you going to change the contents of the ROM? The simple answer is that you can't. Even hardware which stores their internal programs in EPROMs or EEPROMs or other forms of Flash Memory can't necessarily be changed easily and cheaply.

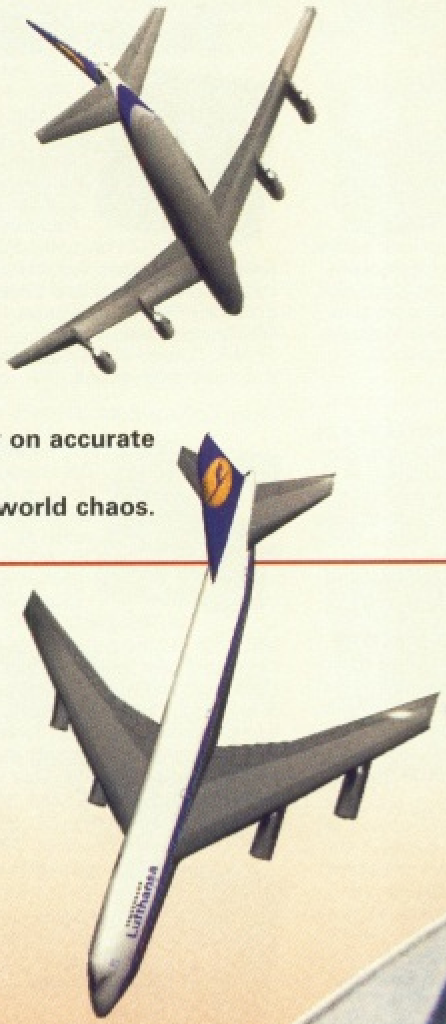
DEC 31:1999 : 23:59 : 58



More serious problems

There are some very serious problems that may be caused by the Millennium Bug. Almost everything we depend upon for everyday life in our modern cities relies on computers, all of which will have some kind of time/date dependant functions. Fixing the problem is a tricky business, as explained opposite. There's no guarantee that every bug in every system will be located. In fact it would be a miracle if that were to happen, so it's likely that somewhere, sometime soon after the new year celebrations, something will go badly wrong as every computer system in existence joins in in the world's first realtime global beta testing session. Instead of error reports, it may well be SOS calls that are the first signs of the previously uncovered bugs. In a worst case scenario, here are the possibilities:

* Power station control software shuts down. Incorrect bills issued.
* Hospitals losing vital records and electronic equipment failure.
* Security cameras with wrong dates stop being admissible evidence.
* Air traffic control systems shut-down.
* Nuclear reactor systems. Whoops.
* Military hardware systems. Whoops again.
* Telephone network and exchanges become confused. Incorrect bills sent out.
* Satellite control systems fail.
* Broadcasting (TV, Radio) systems rely heavily on accurate time. They stop working.
* Commercial banking systems fail, leading to world chaos.



be bounced around the world through countless systems, there's plenty of opportunity for things to get cocked up.

Despite all the fuss about it in the media, entire companies being set up purely to service the problem, reminder letters to business from the Prime Minister and so on, don't for a minute think that every system is going to make the deadline. One way or another that's bound to affect you and probably your Amiga too.

Coming soon: 2035 bug

As if worrying about the year 2000 wasn't enough, there's also concern about what is considered the next time hurdle: 2035. In a nutshell, you don't need to worry about this affecting your Amiga, or at least, let's face it, if you're still using the same system in 37 years time, you must be the tightest person in the whole world, in which case you deserve all the hassle it could bring. That's if you're still alive then of course. And even if you are alive and using the same computer in 2035, it's odds on that it won't affect you anyway, because this fear comes from the 2035 bug in Unix systems which us 31 bits to store time by counting every second from 1970 to the present day, which will wrap around in about 38 years time.

So that's all a lot of fuss about nothing as far as we're concerned. Oh, and by the way: the Millennium technical starts on the 1st January 2001. Happy New Year!

John Kennedy

What can I do?

- Test your system now to see if it is Year 2000 compatible.
- Contact the software publishers to see if there are any fixes available.
- Check out the alternatives for important information.
- Press Parliament to move to counting years in hexadecimal, thus delaying the millennium for another six years.

Domestic appliances which might fail

Any system which stores years using only the last two digits is a good candidate for failure, come the year 2000. It's impossible to say what might happen – often nothing – but depending on how they are programmed, a system could freeze up totally or produce unpredictable results. Any electronic circuit with a clock might go wrong, here's a list of ones you might not have considered.

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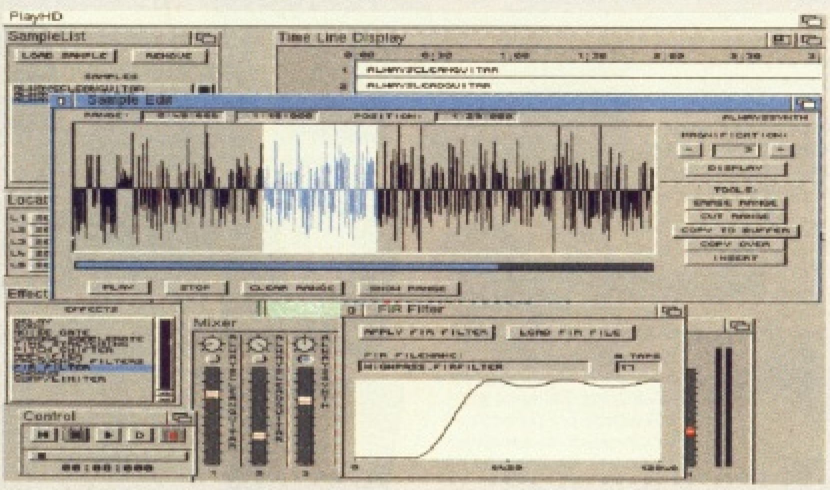
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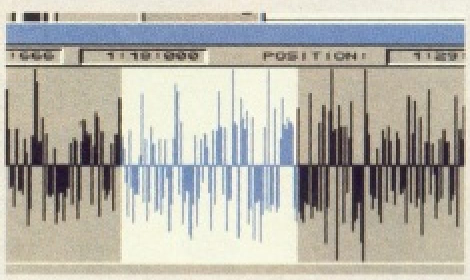
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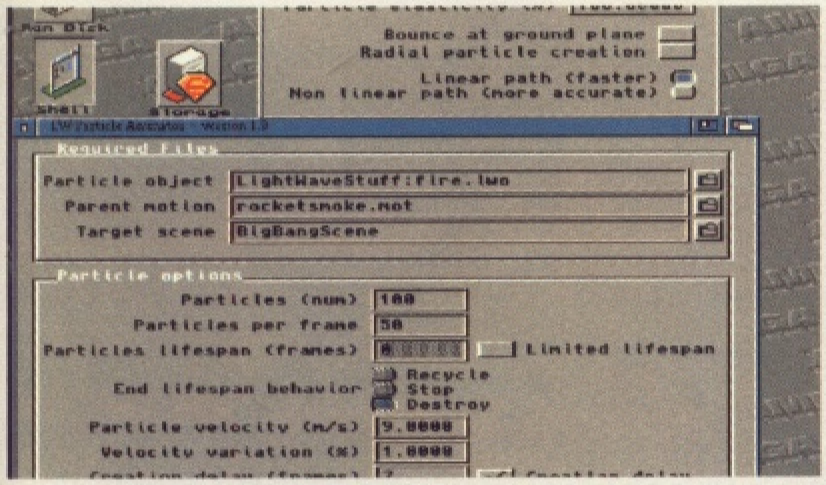
Winner
Title: PlayHD
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Author: Davy Wentzler



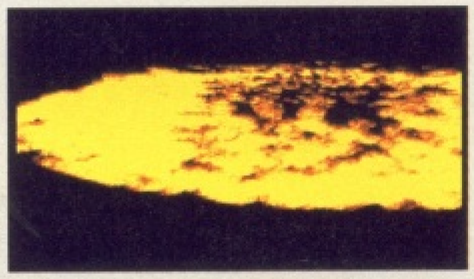


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Author: Alastair Robinson



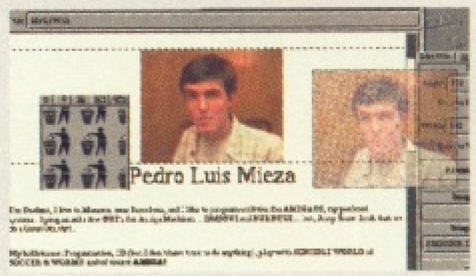


Winner
Title: LightWave particle animator
Description: Particle plug-in for LightWave
Author: Paul Firth (Purple Productions)





Winner
Title: Metal Web
Description: Web page designer
Authors: Pedro Luis Mieza & Josep Rubiralta Ferrer (Multitaskers)





Winner
Title: Cydonia
Description: 3D Doom-type game
Authors: T Till & S Hewitt



Honourable mention...

The judging process was a long and complicated one, but finally we came up with five winners. The actual pieces of software selected were not simply the five best pieces of software written for the competition, they were pieces of software which fulfilled the aims of the competition most fully.

There were some very, very good entries which didn't make it, and the main reason was that they simply didn't persuade us that they were particularly deserving of conversion to PowerPC. A surprising number of people forgot about this aspect of the competition and sent in card games, Workbench clocks or text conversion utilities that were never really going to win.

An excellent board game failed because in the end it was a board game. A workbench replacement utility looked rather good but the version we were sent just gave us register now requesters any time we tried anything. Finally, special mention has to go to the coder of a connect 3 Workbench game that took 10 Mb. His prize is a job with Microsoft.

Screen Scene

The Amiga games market defies all logic. We take a look and ask a rather unexpected question.

Reviews



H-Bomb, from Aurora works.

Sony proudly announced at the beginning of this year that 200 new titles would appear on the Playstation. Inevitably there was an immediate split between the people who proclaimed this as proof that the Playstation was the greatest gaming platform ever and those with longer memories who recalled that a glut of games tends to be the harbinger of a platform's demise.

200 sounds like a lot of games, even for the platform of the moment. So how many are there planned for the Amiga in the next year? Without the centralised control of the Playstation, it is a little hard to control, but a little research threw up 75 games which are intended to compete for your cash during the current year. Another few spring to mind that I have promised not to mention and there are probably countless more I've forgotten or not heard of. For the sake of argument, let's say 100 games.

Now if pundits consider 200 to be too many for the Playstation, how can 100 make sense for the Amiga? A significant number of these games will not actually make it. Games come out late, projects turn out to be impractical or unpublishable. Some of these titles will end up coming out as freeware like Blitz Bombers or as Shareware, or will be put back to 1999. In some cases possibly 2999. Despite all this the Amiga is likely to see a lot more games this year than the Nintendo 64 or Sega Saturn.



Bugs from Prey

The thing about the Amiga is that it is a lot more practical to program than other platforms. There are a lot of talented Amiga users, and the development costs are far lower. Develop for Playstation and you'll need a couple of grands worth of PC, and a hell of a lot more spent on software tools. Most of the software you need for the Amiga can be got for far lower prices, and you can live without a full development system. With all that talent, there are bound to be plenty of games releases, but unfortunately there isn't the market to support them.

Sadeness' experiences with OnEscapee have highlighted some of the problems. Despite getting a lot of good reviews, sales have been very disappointing. Sadeness' Kris Brown has expressed some rather strong opinions on the matter on the Internet, although we have been assured by the company that they are not giving up yet. Pre-orders for Foundation have been very promising, but if OnEscapee can't sell in big numbers, what hope other titles? It may be that a certain amount of caution was engendered by a certain rather odd review score it got, but I suspect that most of the problem is down to two things. Firstly, people prefer to buy from shops rather than mail order, which is not a very useful attitude when the market is now nearly mail order



Bugs from Prey



Wasted Dreams – project on hold while the development team decide whether it is still worth it (see Vulcan boldly go).

only, and secondly it may be that OnEscapee had less universal appeal than something like Foundation has. It may be that the Amiga games market is so small you can't afford to cut it down into smaller segments, and an adventure game released the same time as the rather more successful Myst was perhaps always going to struggle.

So are there more games in development than the market is able to sustain? Quite probably. There are likely to be some disappointed developers out there over the next year. Of course there will always be the odd game that does the business, and even a poor seller can be a great addition to a CV, but can it really be that the famed Amiga games revival is going into meltdown before it has even started?

Vulcan boldly go

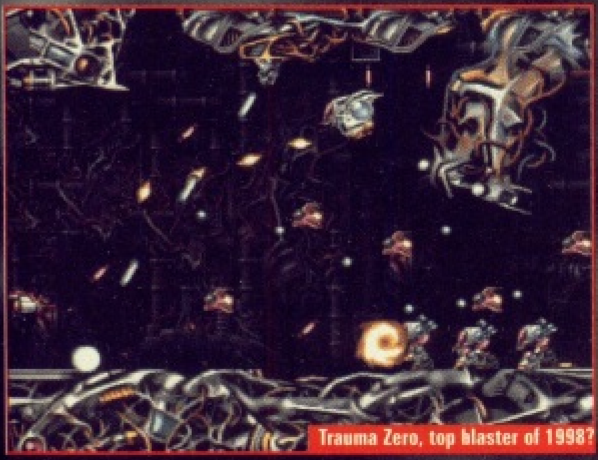
Vulcan software have announced that they are moving into the PC and Playstation games market. They will scale back Amiga development, but titles such as Genetic Species, Hard Target, Explorer 2260 and Maim and Mangle will still be going ahead. Vulcan explained their reasons for this move in a long statement issued onthe Internet (and reproduced in the magazine drawer of this month's CUCD) which has caused considerable controversy.

Vulcan's Paul Carrington explained that they no longer felt that the market for Amiga games was sufficiently large to sustain them as a business, and was critical of the apparent slow progress since the Gateway 2000 buyout. Strongest criticism was aimed at software pirates, Paul Carrington pointing out that the practice is vastly more damaging in today's small market than it ever was at the height of the Amiga's popularity.

New high spec game

We always like to hear of ambitious games developments at CU Amiga, and Bugs from new software house Prey is certainly that. Aimed at very high end machines, Bugs looks something like a cross between Worms and Mario 64 on the Nintendo. In game graphics will be set in a full 3D environment and game characters will be "low polygon" models. A cut down version for high end 68k Amigas will come first, but Prey, clearly looking to the future, seem more interested in developing for the PPC and A\box.

The images here are mock ups, but are intended to give a good idea of what the game graphics would look like. If they can deliver what they promise, Prey will certainly be one to watch!



Trauma Zero, top blaster of 1998?

Descent arrives!

Following in the footsteps of Doom, Parallax released the source code for their excellent 3D Doom-clone/flight-sim hybrid 'Descent' into the public domain recently, and the first of the inevitable Amiga conversions are already here.

Two versions have been released on the Aminet so far, with at least two more planned. Further optimisation, and an upcoming PPC version, promise very playable versions soon – full details next month. ■

Andrew Korn

1998 RELEASES

- Abduction
- Acsys
- Adventure Shop
- Alien F1
- Alive
- Aphasia
- Art of Destruction
- Bermuda
- Beyond
- Bugs
- Caveman Species
- Claws of the Demon
- Counterstrike
- Daydream
- Dead Walk
- Desolate
- Diversia
- Eat the Whistle
- Escape from Atlantis
- Escape Towards the Unknown
- Evil's Doom
- Explorer 2260
- Fire 3D
- Forgotten Forever
- Foundation
- Fratzengeballer
- Genetic Species
- Gilbert Goodmate
- Gloom 3: Directors cut
- Goblin Tanks
- Golem
- Great Nations
- H-Bomb
- H.A.R.D Corps
- Hard Target
- Haunted
- Hotel Manager
- In the Shadow of time
- Jaktar
- Lambda
- Last Days of Paradise
- Magic Island
- Maim & Mangle
- Marblelous 2
- Martian Tales
- Megablast
- Mobile Warfare
- New Horizons
- Nothingness
- Olofight
- Orion Wars
- Phoenix
- Pinball Brain Damage
- Powder
- Pulsator
- Puzzle Heroes
- Quake
- Quiet Please Tennis
- Radioaction
- Rally World
- Scions of the Forgotten World
- Sixth Sense Investigations
- Sixth Sense Investigators
- Skaut
- Skimmers
- Starfighter
- Testament 2
- Tiger's Bane
- Total Combustion
- Total Destruction 3D
- Trauma Zero
- Virtual Karting 2
- Wasterados
- Wheels on Fire
- Wingnuts

Doom Level Round-up

Continuing from last month's Amiga Doom explosion we take a look at some of the best 3rd party levels out there.

Doom blasted its way onto our Amigas last month care of our cover CD and special three disk issue. Once you've played through the shareware level you might think that's that, but you'd be wrong! On last month's CD you'll find loads of extra Doom levels, known as WADs, which have been created by PC Doom fans. You can play these on your prefered version of Amiga Doom, but first you'll need to buy an original copy of the PC game. This is available from a few advertisers in this magazine including Weird Science and Epic Marketing, and you should also be able to find it at your local high street games retailer.

You can get Doom, Doom II (which adds new levels and a double-barrel combat shotgun) or Ultimate Doom with a special fourth level added on top of the original.

We'll take a quick look at the whats, hows, and whys of these add-on Doom levels, and sample the highlights from the CD and the world at large.



▲ Running around shooting people never seems to get boring when you've got an enormous supply of new levels.

Waddle over

Throughout our examples, we'll assume you're using ADoom, but the general advice is the same for any version you might be using.

First off, to take advantage of third-party WADs, you absolutely have to have a data file from a registered (commercial) version of Doom. The shareware WAD we gave you won't cut it. Once you have that installed in the directory of your favorite Amiga Doom program, you can launch any new WAD by typing

```
adoom -file <path and name of the new wad>
```

at the command prompt. If all goes well, the game will launch but when you start up, you'll be in a totally different maze. Alternatively, check this month's CD for some new Doom tools including a Doom GUI front end to make this process a whole lot easier.

Some add-on WADs are very simple affairs. The most basic usually replace the first level of the first mission – after that, the game reverts to the original Doom maps. Others are complete multi-level missions, have different graphics, sound effects, music, and weaponry. Most WADs come with at least one text file from the author telling you about what he's done – read them carefully because they not only describe what the WAD might be best suited for (some are intended for single player action, others are really only good for deathmatches), but they also tell you where the new levels are located. Some authors stick their new levels in odd places and it won't be immediately obvious how to reach them unless you read the file. For example, let's say a WAD author replaced mission 3, level 3 of Doom with his maze. To reach it in a hurry, use the level skip cheat (IDCLEV XY where X is the mission and Y is the level), in this case "IDCLEV 33".

Total conversions

Some WAD authors go one step beyond creating a new maze or sticking a 70s rock tune in the game. They replace everything, from the weapon graphics to the wall tiles to the monsters. These are called "total conversions", and some of them were even included on last month's CUCD. The problem is that at present, we can't take advantage of these on the Amiga (once again, check the CD for Doom updates as may may have squeezed on some total conversion compatible versions at the last minute).

Eat these WADs

Third party WADs vary wildly in quality, from pedestrian and uninteresting to truly enjoyable. Aside from some basic design issues (is the maze interesting, are there enough monsters and enough weapons to take them out with without there being too much of either) the #1 cause of a bad WAD is poor "seaming" of walls. Some designers are sloppy and what should be gently curving walls are not placed together properly at their seams, so that if you're running while brushing against a wall you get caught on an edge. You do a lot of this movement when searching for secret doors or just running away very fast, and it gets quite irritating in either case.

Last words

Do yourself a favor and keep up with the latest Doom releases. Little niggling bugs are being fixed every time you turn around, and more and more features are being added – better RTG and processor optimizations, more audio options, and so forth.

Do yourself another favour, and if you've got the CPU time to spare, install the music options for the Dooms that support it (presently, ADoom and Doom Attack) The music really adds a sense of atmosphere to the games that you miss if all you hear is the gunfire.

And lastly – if any concerned parents or shocked friends notice, some of the raunchy exit messages in these versions of Doom were not put there by the guys doing the Amiga ports, and I doubt they were put there on purpose by id – somebody left something in that they weren't supposed to after the internal versions were finished, I'll wager.

Look out for commercial compilations of Doom WADs and total conversions. We'll be reviewing some in the very near future. If you can't wait till then, give Weird Science a bell and ask them about their joint Doom/Quake level CD. ■

Jason Compton

Some of the best WADs

Here's a quick look at the more notable WADs of last month's CUCD. The filenames of the WADs themselves are given in brackets to help you locate them.

Too Simple
(2simple.wad)



Typical guns-blazing sort of level. Better suited for deathmatch play, although there are so many baddies in either case it's overdone. A good challenge, though, if you want to try to kill everything with just the plasma gun ammo provided. Can be interesting if you make it out of the starting room. Good for a laugh.

Crossing Acheron
(acheron.wad)

A very well designed single level WAD. Confusing because the author chooses to place it at mission 1 level 3 but he did so for the music associated with that level in the original game. The opening, giving you a shotgun with which to face a demon, is very exciting and leads in to what is overall a very well thought out level. The



powerups are pretty evenly distributed and the author didn't go as crazy with monsters as some have. (Even on the toughest difficulty, a level should at least allow you to win with a minimum of cheat codes.) The use of doors is quite clever and the maze seems to have been designed rather than just bunged together at short notice. Acheron is well worth the trip.

Doom Forest
(forest32/forest.wad)

One of the neater ideas I've seen. It's pretty standard Doom fare but with some nice music tracks (including the painfully obvious "Another One Bites the Dust") and takes a lot of the action outdoors – not to some hellish red plain but a fairly normal looking outdoors, except that much of the flora looks like green tentacles. The mazes are reasonably designed although I tend to like a little less gratuitous use of the "starfield wall" texture.

The last level makes great use of imp snipers, putting them atop a VERY tall ledge, and that and the weird stereogram-like walls may give you a touch of vertigo. It's also a bit of a letdown – since it's a small WAD they can't give you a big message at the end of your (4-level) mission, but I hoped for more of a sense of accomplishment. It's

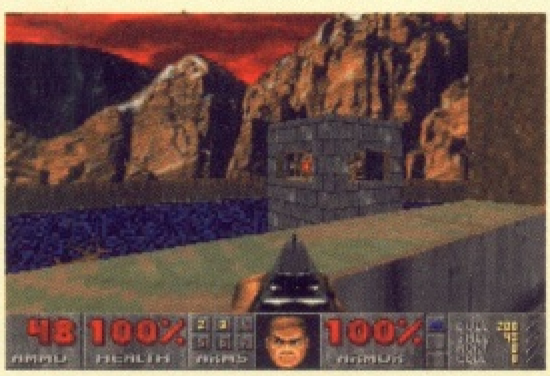


actually fairly easy to escape the last level, and I was hoping for a bit more. Still a strong WAD overall and worth a look. The replacement sky texture alone makes it worthy.

What's for Dinner?
(dinner/dinner.wad)

This is probably my favorite WAD of all time. I would honestly not have blinked if I'd paid money for it. The author has a very good attitude about game design – it shouldn't be about ridiculous traps and tons of impossible situations which require you to cheat all the time. Not that I'm opposed to turning on god mode, giving myself all the weapons and just shooting rockets at everything than moves but it gets boring after 5 minutes. What's for Dinner is something you can come back to again and again.

There's a very nasty claustrophobic feel – racing through tight tunnels, up and down cramped staircases, wondering who's going to be at the other end. And the ammo allocation makes it exciting rather than "Oh, if it's a nasty huge spider thing I'll just nuke it and be on my way" sort of affair. There's a healthy use of barrels in some very clever Indiana Jones-esque ways which I of course



approve of heartily.

What's for Dinner runs a full nine levels. Only in the final few does the author go really crazy and put you in nearly (or completely) impossible situations, but on the other hand he does recommend not playing at the higher difficulty levels due to the design of the game. A real winner. Invite yourself over for some dinner.

"Episode 3 Best"
(epi3best.wad)

A disjointed collection of 8 wads deemed by the compiler to be the best he has. There's something for everyone in here – a level with wild teleporter dancing, a level that requires patience and precision maze running, a level with a healthy stock of barrels...you get the idea. A pretty good starter pack if you're not sure what you like. A good compilation. Worth checking out.

Honorable Mention: Barrels
(barrel.wad, on this month's CUCD)

For bona-fide barrel-shooting sickos like me. Played on Ultra-Violence (or, God forbid, Nightmare) mode, it's actually pretty challenging. The "plot" – there are three





▲ **See what happens when you leave the safety catch off your gun?**

rooms filled with bad guys, and with barrels. The first room has foot soldiers, the second imps, and the third cacodemons (eye creatures). My strategy is to ignore the soldiers to start, run into the doorway of the second room, and try to blow up enough barrels to start a chain reaction to take out a bunch of imps. Then go back, blow up the soldiers and pick off the remaining soldiers and imps. There probably won't be many barrels left to take out the cacodemons, but once all the other distractions are gone they're easy to take out – they move slowly.

Simon the Sorcerer

■ Price: £14.99 ■ Publisher: Adventuresoft ■ Distributor: Epic ✆ 0500 131486

An old classic returns, with a familiar voice!

When Adventuresoft released Simon the Sorcerer back in '93, they hoped to beat, or at least compete with Monkey Island 1 and 2. It never got the success of the Lucasfilm adventures, but it deserves a place in the 'Adventure Hall-of-Fame'. If you missed it back then, now is your chance to catch up.

Simon the Sorcerer has great hand drawn graphics, scanned in and then touched up and coloured resulting in cleaner and smaller images than in the Lucasfilm games. It also has some stunning character animations. Simon has 80 frames alone, and additional action-specific animations make the character come to life. In one scene, a Swampling tries to get you to eat some swamp mud. For this there are 1000+ animation frames!

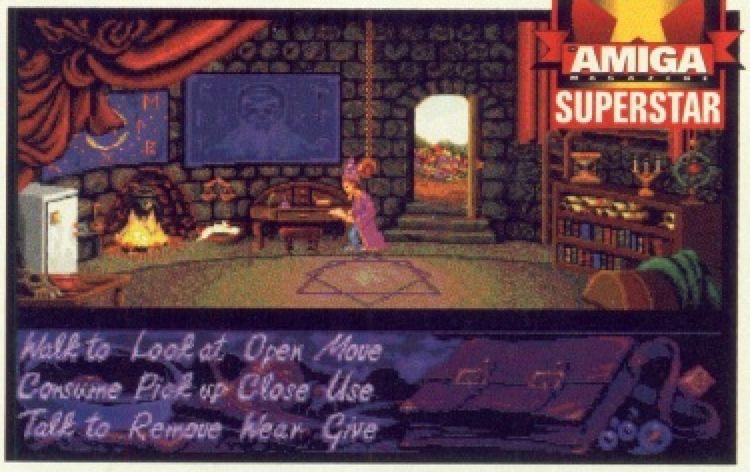
The plot

The story is of a young lad, who since his 14th birthday has been obsessed with magic tricks. One day, a small puppy arrives on his doorstep with a leather bound book. Reading it causes Simon to accidentally open a portal to another world and he goes through it. The rest you have to figure out yourself. The storyline is humorous, and the puzzles are stacked, stretched, interwoven and then doubled back to make them as complex as possible, while at the same time logical.

This game also has some very funny conversations that don't require any input from you, you can just stand back and watch people talking. Sound on the CD release is much improved by a complete vocal track supplied by non other than Chris Barrie, from 'The Brittas Empire', and CU's own Tony Dillon. Simon also has a tune looping into eternity. When you play the game you might wonder if 'Coolio' has played it before you – the resemblance to the chorus in his "See you when you get there" is striking.

All in all, Simon the Sorcerer is a game with humour, great graphics, and complex puzzles, that belongs on top with the best. Good of Epic to arrange a re-release! ■

Sjur Mathisen



AMIGA MAGAZINE SUPERSTAR

▲ A quality adventure and no mistake, enhanced by Chris Barrie's famous vocal talents.

Graphics 91% Sound 90% Lastability 87% Playability 90%

■ Workbench version	3.0
■ Number of disks	11/CD
■ RAM	2Mb
■ Hard disk installable	Yes, for disks

90%

Theme Park

■ Price: £14.99 ■ Publisher: Bullfrog ■ Guildhall Leisure ✆ 01302 890 000

Guildhall's latest re release sees the welcome return of a Bullfrog Classic.

Red Dwarf has always been a great Sci-Fi Sitcom. The first series is a classic from the good old days. Then, some special effects team comes along with their swanky 'new' (ie; what Holly would regard as primordial soup) technology. They throw in handfuls of computer-generated sequences to bring it up to date. But does it work? Is it still the same?

So is the feeling with this re-release of Theme Park from Bullfrog, originally with us three and a half years ago. This time, there are separate ECS and AGA versions as well as some nice animated sequences bolted on for good measure. Sure, it's more appealing than it used to be, but let's not start judging a book by its cover. The game itself is still Theme Park. It's still a classic.

You can still draw smiley faces in the grass with sections of path if you like, but it's not going to attract the crowds. You soon find out that this game means business. Running your own Theme Park is more than just building lots of exciting rides and making sure the litter gets picked up. It sounds straight-forward, but all your little visitors have been blessed with the uncanny ability to spot the lack of amenities, grumble about the sparsity of the bouncy castles or moan of their perpetual hunger 'til the cows come home. Which never happens, by the way.

The theme of Theme Park is addiction, and if the playing experience were to be likened to anything, it would have to be a rollercoaster. After paying your money and strapping yourself in, the rollercoaster steadily makes its way up a learning curve just steep enough to get your veins pumped with adrenalin. There's no going back.

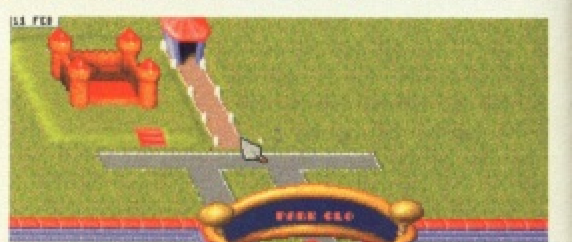
Once you've got the hang of placing footpaths, food stalls, rides and queues in strategic places and suitable quantities, the rollercoaster slows down and levels out. Now's the time to make sure you're strapped in and able to find your way to the toilet at a moment's notice. The rollercoaster begins to dip, and seconds later you feel like you've been surfing in Old Spice. (No, that's not the sixth member).

If you're after a rewarding couple of months game playing, order yourself a copy of Theme Park. The 'Wow factor' may have been hushed a little with age, but its addictive quality will never be silenced. ■

Martin Davies



▲ Attract the crowds with giant snake-shaped helter skelters and log flume things.



▶ Transform endangered wildlife habitat into tacky overgrown funfairs!

Graphics 79% Sound 50% Lastability 85% Playability 83%

■ Workbench version	2.04
■ Number of disks	CD
■ RAM	2Mb
■ Hard disk installable	Yes

82%

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CUCD 20 Rear Inlay

Here's your 'cut-out and keep' CUCD 20 rear inlay card which was missing from the CD that came with last month's magazine.

You'll have noticed last month's CUCD came without its usual spine and rear inlay card. This was removed at the last minute due to the inclusion of the id Software logo in the corner. id Software were understandably not prepared to put their name and official seal of approval to the unofficial Doom incarnations on the CD. For all they knew, having not seen these Amiga Doom conversions, they could have been endorsing substandard products by allowing their logo to appear on the CD packaging. We've therefore re-run the inlay here, minus the logo of course, so that you can plug the gap in your neatly filed collection of CUCDs. Follow the cut and fold instructions, carefully prise up the black backing plate in the CD case and insert the inlay, then reassemble.



CU Amiga Magazine's Super CD-ROM 20



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CU Amiga Magazine's Super CD-ROM 20

CU Amiga March 1998 CU Amiga March 1998

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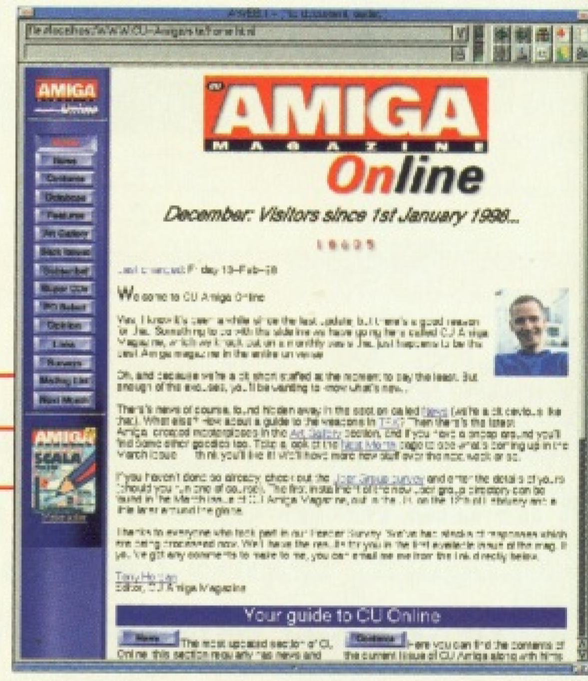
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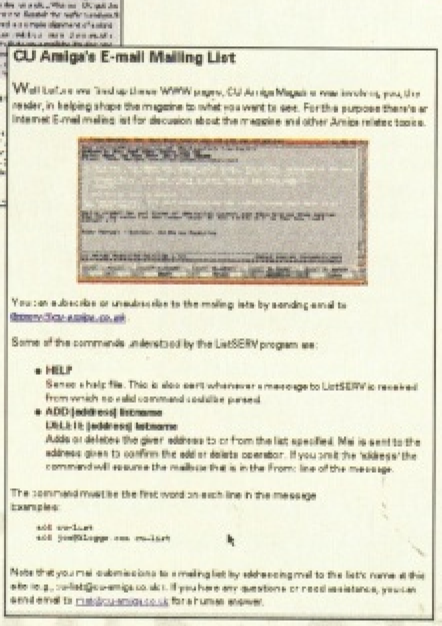
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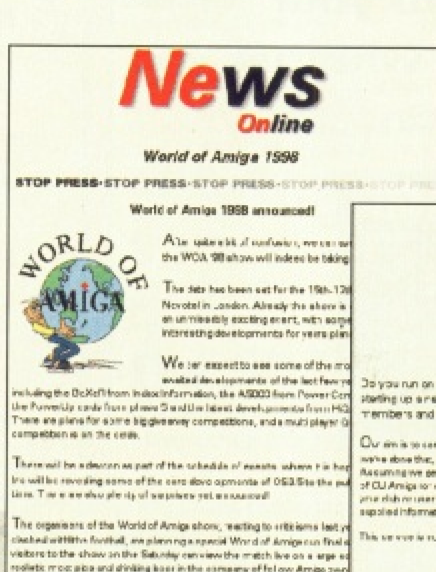
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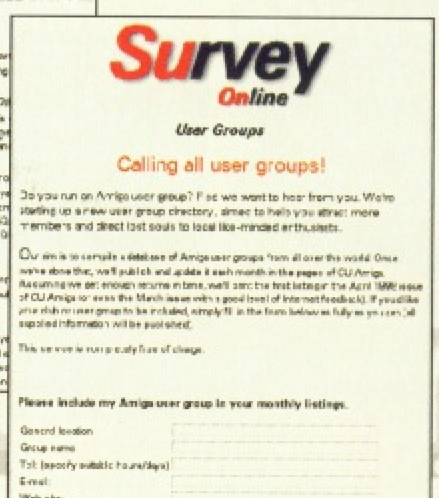


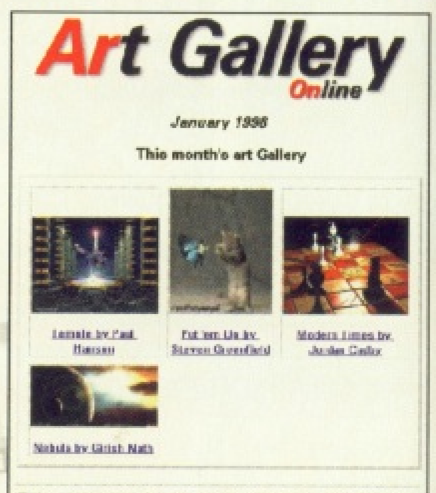
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Wingnuts

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What happens when wacky cartoon characters are given even wackier flying machines and duel to the death on an alien world? Wingnuts answers just that question.

Sometimes it takes a newcomer to shake out the doldrums. It seems like everybody these days is obsessed with getting a realtime strategy game to market – they used to be obsessed with getting a 3D shooter out, but the release of Doom and Quake changed all that. Along comes the Skunkworks, newcomers to the Amiga games market, to try to shake things up with Wingnuts, an action flight sim with tongue planted so firmly in cheek it's causing lacerations.



◀ If I didn't know better, I'd think that was Yosamite Sam grinning with pleasure at his latest victory.

Wings, take flight

Wingnuts puts you in the cockpit of one of six whacky flying machines, from a UFO to a bizarre rocketship to a flying car. Behind the controls, you can take on the persona of six different pilots, each a cartoon stereotype.

The plot, as it were, is that Wingnuts is the most popular contact sport in the galaxy and you're in a small arena on a small planet dedicated to the thing. When you strap in to the contraption of your choice, you face off against five other pilots, up to three of which can be human (if serial linking two Amigas together – otherwise you can play against one other person)

Once you've made your pick you're taken away to the arena, where each player gets a half-screen view from just behind the pilot, which means you see the cockpit and pilot as well as out the window. There are a wide variety of weapons to choose; guns, rockets, missiles, 'laser' weapons, and defences.

Crash and Burn

Wingnuts looks like a great game up until you actually get to the flying around and fighting part. The 3D flight engine isn't very detailed even when set to 'very high' detail mode, but this is no big deal as it makes the game well suited even for slower machines, and given the game's dogfight nature they weren't going for professional flight sim realism. But so many corners were cut that the game is nearly impossible to play.



▲ A cast of milli... er well six, anyway.

For starters, there is no artificial horizon or altimeter, and gauging distance from the ground is nearly impossible unless you switch to the external view, which involves a keypress and is hardly convenient. The lack of a horizon means that you are not only never quite sure how high you are off the ground but whether or not you're continuing to climb. You do have a radar, but I am all but convinced that it bears no actual resemblance to the action around you. The manual does a very poor job of explaining it and hours of flight time got me no nearer to understanding its mechanics, or how to locate an enemy. By 'locate' I mean get one in my sights – you can tell they're there because they shoot at you constantly, but I'm damned if I know where they are.

I tried to look past these glaring flaws and get on with playing the game. Getting a missile lock on an enemy contraption is not impossible, but is extremely difficult. On the other hand, the bad guys seem to be able to get locks on you whenever they feel like it, and you wind up depleting your store of missile decoys very early in a match. Managing speed is easy enough to manage with the keyboard, but using the function keys to cycle through weaponry fast enough gets very harrowing. Support for CD32 joypads, or even two joystick buttons, would have been extremely welcome.

If combat gets to be too much for you, you can seek haven on the landing strip and get repairs. Sounds great, doesn't it? Except that there's no actual way to tell where the landing strip is at any given time – there's no map! You can enable an autopilot mode to land you, and this may or may not take you to the landing strip. Sometimes it just sets you down on the ground.

The manual mentions that the average lifespan for novice Wingnuts is 42 seconds. This is funny, until you realize that it's absolutely true. The enemy buzzes around you and mercilessly pummels you time and time again. It's not really possible to play in a true 'novice' mode where your pilot is an ace – you can build up the mediocre starting stats of the 6 pilots but that doesn't do you much good if you can't win a single dogfight.

I found the most effective combat strategy was to buy the 'Blunderbuss', a machine gun you can fire from the ground, land and then just shoot away at guys from there. Unfortunately, I also found that I couldn't get back from the Blunderbuss sight to my cockpit. It's things like this that give Wingnuts that "not playtested by those who weren't intimately involved in development" feeling.

The Shame of it

The real shame is that I wanted to like Wingnuts. There's a lot to like. The manual, while produced on a very bare budget, is whimsically funny without being annoying.

The pilots hold up little signs, get ill, and panic and are quite charming in their way while the carnage mounts around them. And if Wingnuts got a few weeks of external playtesting and a retool by the programmer, it could be a very fun game. It's just not playable as it stands. ■

Jason Compton

Wingnuts

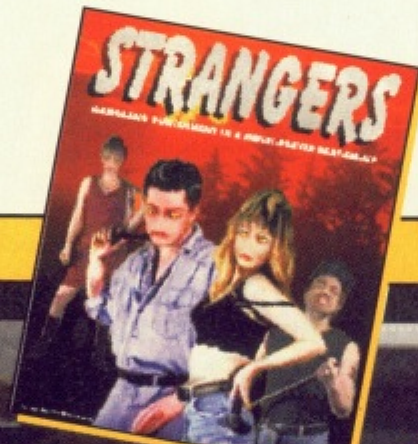
■ Workbench version 3.0	Graphics 85%
■ Number of disks 3	Sound 80%
■ RAM 2Mb	Lastability 50%
■ Hard disk installable ...Yes	Playability 50%

OVERALL
A great concept, with good graphics, ruined by poor gameplay.

67%

Tips Central

The elusive Mark Forbes re-appears after a short break with some more tips alongside our regular Adventure Guru Sjur Mathisen.



Strangers

Thanks again to the luvly Lisa Tunnah for these codes. Sorry about nagging you for them Lisa, I promise I'll make it up to you somehow dear.

2- Dead
3- Fack
4- Foxy
5- Puke
6- Fami
7- Mago





You need help

If you would like some help on any game – or you have some tips that you'd like to share with your fellow readers – then please write to us at Tips Central at the following address, remembering to mark your envelope Adventure or Arcade accordingly:

Tips Central,
CU Amiga Magazine,
37-39 Millharbour,
Isle of Dogs.
London E14 9TZ

Wing Commander

I hope that many of you have this great game in your collection – better still it's the hard to find 1200 and CD32 limited versions.

From CLI change the directory (CD) to the directory where Wing Commander is installed, or DF0 if playing from floppy. Now type 'Wing h0 Origin&tonic' and press return. Make sure you make a copy of your original disks before attempting this cheat and type it exactly as it is shown. Now during play hold down shift and press F5 to destroy any targeted target.

S - 1-13 - Pick the System where you want to start from.

M - 0-2 - Pick the mission you start at.

K - You are Immortal!!!

Number of system:

1 - Enyo
2 - McAuliffe
3 - Gateway
4 - Gimle
5 - Brimstone
6 - Chengdu
8 - Port Hedland
9 -Kurasawa
10 - Rostov
11 - Hubbles Star
12 - Venice
13 Hells Kitchen

T2 - The Arcade Game

Cheat Mode: Enter 'PMT' as your initials in the high score table. Now during play pause the game and press F10 to skip the levels.

Golden Oldie Tip

F-A-18 Interceptor

Select option 2 from the title screen: 'Free Flight, No Enemy Confrontation'. Now, instead of entering 1-4, press 0.

The screen will go into a spiral and scroll way south to 34 by 117 degrees, placing your aeroplane somewhere without a runway.

This happens to be in the middle of the Edwards Air Force Base, where the F/A-18 was flight tested. To take off you have to use the afterburners.

117 degrees is the furthest south you will be able to fly, but you are able to fly in other directions.

Taxi down U.S. 101, turn right at Highway 92, pull up to the EA Headquarters and blow it away!

In mission 6, once you've fired all your missiles, you can land on the Shadow Sub (if it's still afloat that is!) and it will re-fuel and re-arm you.

For Extra missions select 'Free Flight', then press 6,7, 8, or 9 to enter a mission.

Adventure Helpline


Beneath a steel sky


Myst

Beneath a steel sky

I've noticed in your January '98 edition that you have some tips for the game , but my only problem is I've done everything right up to getting Joey to blow the fuse box and I know I don't need the WD40 or the key but how do I knock out a crusader with the divine wrath? Also where do you get the protective clothing from?

Macky, Chorley

I've looked at what I said in the January issue, and after replaying the game just for you, I have to admit my tip was a bit 'inaccurate'.

I won't admit to making an error, so I'll now present my defence. You still don't need the WD40 or the key, but the divine wrath part needs to be sorted out. I hate quoting myself but what I said was "I'd use the divine wrath to knock out a crusader." The 'a' is very important here, because there are more than one crusader in Beneath a Steel Sky, and by using the 'a' I haven't specified which one.

Now for what you have to do right before and after taking care of the fuse box; first send Joey into the storage room. When he comes back, let him handle the fuses. Now you should go into the storage room and lift the gangway. Pick up the putty from under it. Go out and a nice man will take your glasses and sandwich. Exit the factory, and make Joey wield the loose cable on the wall.

Next stop would be the power room, and this is where I'll stop helping as well! Just one more thing then. The radiation suit you need when entering the reactor (after doing loads of other stuff first), can be found in a locker somewhere in the factory.

Monkey Island

Please help me, I've been stuck for ages. I've reached Monkey Island and have picked up the oars, escaped from the cannibals and got some bananas, but I don't know what to do now to progress.

Darren Szech, Swindon

First of all, thank you for providing this months question concerning Monkey Island. You might have done some of the stuff below, but I have a page to fill.

What you might try is going to the fort on the western side of the island. While there push the cannon, and pick up the cannonball. Heavy isn't it? Get the gunpowder, the rope, and the spyglass. Chat a bit with Herman T. The next stop on this tour of the island is the river fork. Find some flint and climb up the footholds. Wow!!! A catapult for you to push and pull. Go to the top of the hill and use the spyglass. If you don't see the banana tree on the beach, go down and push or pull the catapult. Do this until you can see the tree. Now push the rock to activate the catapult, and a message will be shown if you hit the tree. If not, just try another rock. Now you should have plenty of bananas.

Another nice place to go to is the pond at the end of the dry river. There you'll bump into a nice young man, but don't bother chatting with him. Just figure out a way to get the coil of rope he's holding. At the river fork there is a dam. You have gunpowder, and when you hit the cannonball with the flint you have a spark. Need I say more? If this doesn't help, I guess you're never getting off the damn island.

Myst

I've been playing Myst for a few days now and have gone to all the islands but have a slight problem. When I go into the fireplace, that guy tells me to get a page. I don't know where this page is, I've tried the blue and red pages but he doesn't want them.

M Campbell, Tyne & Wear

In the library insert the blue page and wait for psycho boy to be freed. Now Achenar will speak of another page and that the green book is a trap. To get the last page, pattern 158 from the odd book of patterns must be entered in the fireplace. Before getting this page, go back and get the blue page left behind.

Retrace the path and actions through the log cabin, the large tree, and all the valve settings to get back up to the top level of Channelwood. Exiting the elevator, swing left and go to the hut at the opposite end from Achenar's. The page can be found in the desk drawer under the window with the view of the windmill.

In the right drawer under the bed is the other half of the page found earlier giving instructions for access to the hidden vault on Myst Island. Think you can come up with a couple of things to do there now.

I'd also like to mention that there are some rumours going around saying Clickboom are porting Riven as well. Riven has been called Myst 2. Word has it, the release will take place as soon as May. Let's hope that this is true. ■

Sjur Mathisen
sjurm@online.no
http://home.sol.no/~stgenius/



Monkey Island 2

It's software city this month as Tech Scene takes a long hard look at a video effects system, the latest Siamese, a font designer, ST Fax Pro and all the regular CD and PD round-ups.

Tech Scene

X-DVE 3.01

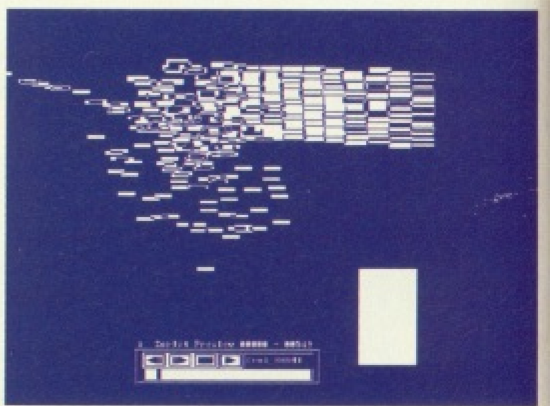
■ Supplier: Haage & Partner ✆ +49 6007 93 00 50
■ Price: DM289 ■ http://www.haage-partner.com

AMIGA MAGAZINE SUPERSTAR

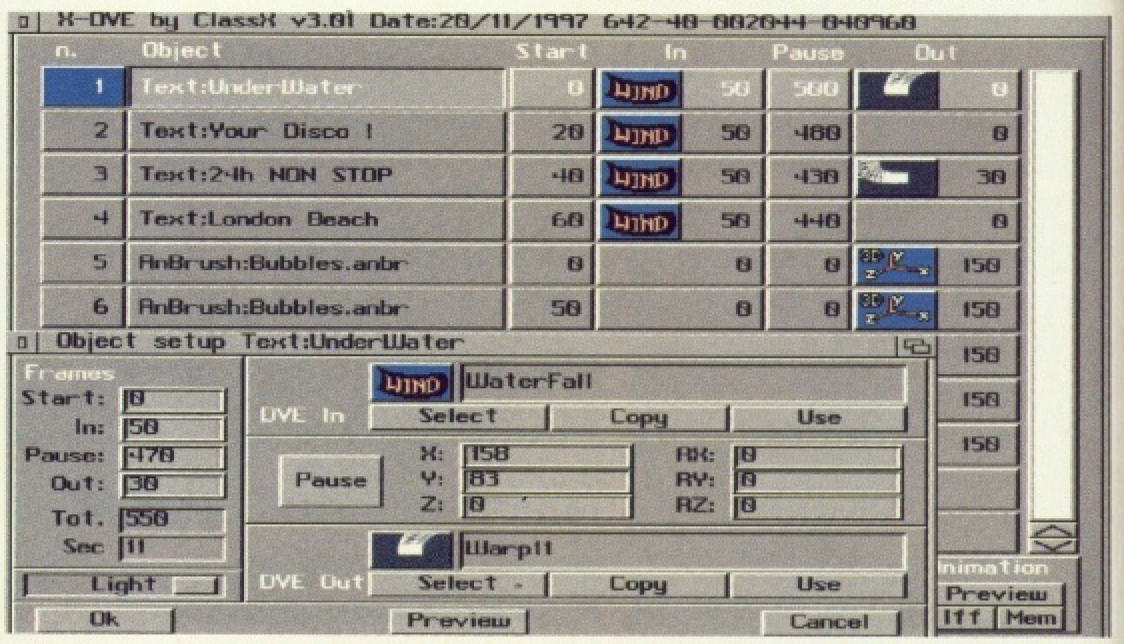
One for video editors and animators alike, here's the new X-DVE.

Every now and then we in the Amiga community get a gold rush of quality software from some country or other where we least expect it. As you might have noticed in recent CU Amiga games coverage, Italy has been a hotbed of Amiga activity lately, and ClassX prove that it's not all fun and games going on in the sunny Mediterranean.

X-DVE is ClassX's flagship product, in effect an attempt to recreate expensive digital video hardware with a humble Amiga and a few inconspicuous disks of software. A decade or so ago, before the Amiga came along and cleaned house, most anything you wanted to do in a video studio required special expensive dedicated machines. Amiga products like the Video Toaster and the Draco changed all that, and X-DVE is swinging by to do cleanup work, displacing expensive effects machines, or providing a lower budget option for those of us who can't afford high-end editing stations.



▲ You might think this looks unimpressive, and you'd be right, because it's just the quick preview screen.



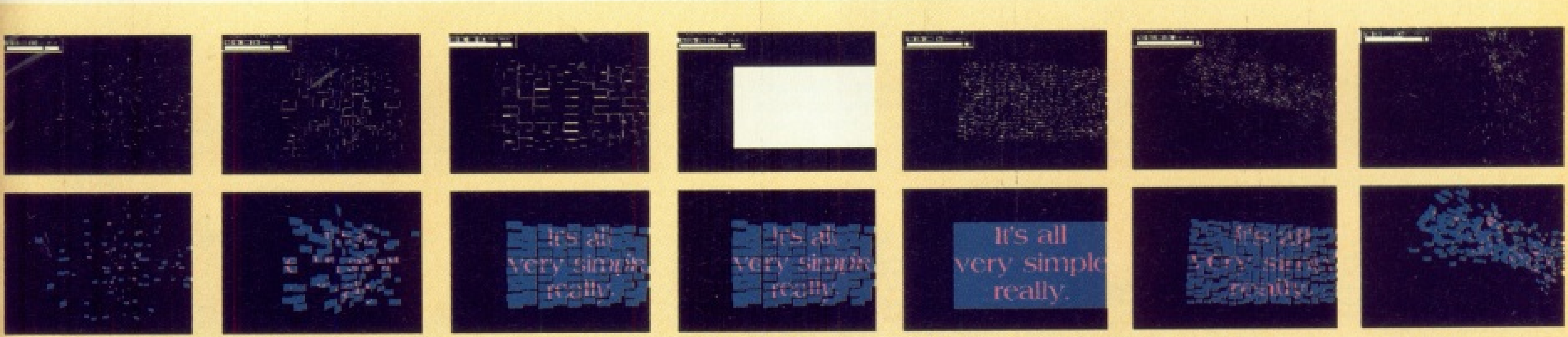
If you've been familiarising yourself with Scala lately, X-DVE will ring a few bells. And on its surface, you could use X-DVE as a Scala substitute, to generate text, apply it to backgrounds, and move it around in sequences. You could, but you'd be missing out on the rest of the good stuff.

X-DVE's strength is in its vast array of impressive 2D and 3D effects, many of which can be employed in limitless permutations. The render speed of these complex effects is astonishing as well, far better than I've seen comparable products, like the Draco's Movieshop software.

Interface

X-DVE's interface is somewhat reminiscent of Scala as well, with lists of objects (text, brushes, starfields, etc.) arranged in a table. The table determines an object's priority over the others. Each type of object has its own characteristics: antialiasing, embossing, shadowing, color, and so forth. Applying text characteristics is a bit less straightforward than in Scala, but the manual's tutorial on text handling soon makes it clear what is required to get good-looking text output.

Each object also gets its own pair of effects and its own timeline: when it should enter the animation, how long it should take to reach its "pause" point (where you want your sliding text to land, for example), and



Here, XDVE flies in a text image using a built-in warp effect, holds it for a second, and then flies it out with another built-in warp. You can interweave several layers of images. The preview window (the strip along the top) shows how the "pieces" will come together before you render.

how long it should take to leave the animation. Of course, you can choose to simply "pop" text up by having it take no time to enter, or keep it moving constantly by choosing not to pause it.

The effects are the make or break for X-DVE. If we just wanted a program to slide text over a pretty background we could have stuck with Scala. X-DVE goes the extra mile, however. The array is impressive, and getting better with each new update of the program. Ranging from click-and-go simplicity to the sort of complexity you should expect from pro tools, X-DVE has it all. There are simple Scala-esque slides (slide left, slide right, etc.), 3D effects which allow you to fly and spin an object into place, "wind" effects that "bubble" an object in a variety of patterns, and warps. The best part of the effect engine is the realtime 3D wireframe previews which allow you to see how your animation is taking shape before committing to a huge render.

For creating quick and easy titles or marquees in a hurry that still look great, X-DVE is a natural choice. The starfield generator is obviously meant for this very thing. If nothing else, you can keep your titles from looking like every other Scala title in the world.

Documentation

The documentation of X-DVE leaves a little to be desired. As of this writing, it is spread out across two 60-page manuals, with another addendum to be included by the time you read this. The first addendum largely supercedes information in the original manual, and given the amount of changes since the addendum (V2.5), the next manual will likely be more of the same. The translation from Italian is also somewhat uneven, although seems to be improving with time. I was stymied as to what to do with X-DVE after reading the manuals, but found that sitting down with the tutorials and working through them cleared up all the mystery in about 10 minutes.

Once you figure out what X-DVE is doing, navigating its menus is quite simple and straightforward. Of some small annoyance is the occasional button which has been renamed, moved, or repurposed in an update, but the new manual should take care of some of these problems. What is notably lacking is "idiot-proofing." X-DVE is not very good at letting you know when you've made a silly mistake. For example: If you try to do a preview without having assigned any start or end frames, X-DVE just stares back silently at you, rather than popping up a requester saying something helpful like "You have not defined a start and end frame." This is a lack of polish more than anything else, but can still cause a lot of anxiety on the early portions of the learning curve.

I mentioned before that X-DVE was fast, and I want to emphasize that. X-DVE is, in fact, surprisingly fast when compared to similar effects packages. When working with simple slide and wind effects, it blows through hundreds of frames in remarkable time on an unremarkable drive (I used an IDE drive for most of the tests). Even 3D and rotation effects, which require a great deal more processing power, churn out at an impressive rate. X-DVE's libraries are optimized for each level of CPU including the 060, which helps a great deal.

X-DVE allows you to output direct to video (render to memory and play it, good for rush jobs), render to IFF frames, or to the custom XFA animation format ClassX developed. You can also import frames—for example, integrating a video clip you've been working on in ImageFX to apply X-DVE effects. X-DVE can handle any image format available through your datatypes through OS 3, but I found that using anything but IFF frames bogged down performance.

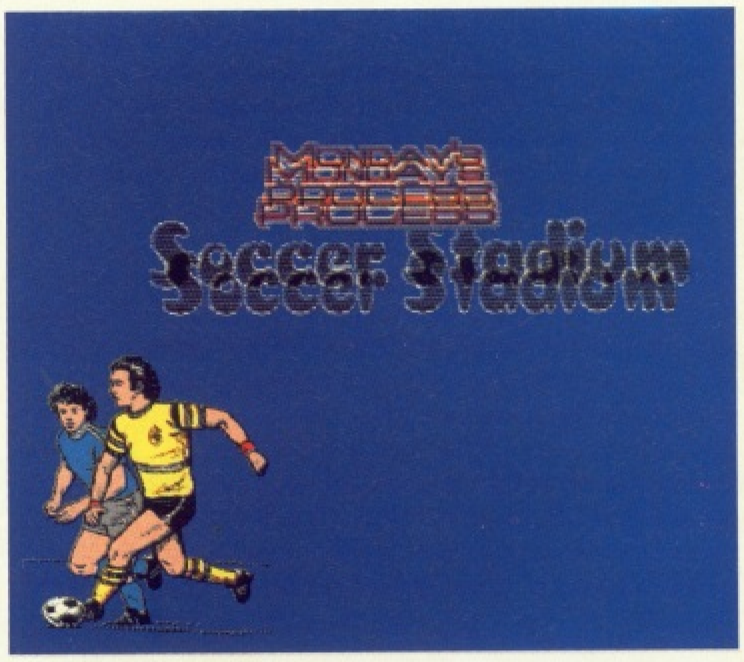
Compatability

X-DVE will work with the ECS/OCS chipsets, but for best speed, not to mention more colors, AGA is recommended. You can do a great deal of the work in X-DVE on a CyberGraphX screen, although you will still need a standard Amiga display to check your end results unless you load the resulting frames into another program or play the XFA animation file. I found using CGX unnecessary and cumbersome, but it's a nice option to have, and necessary for Draco use.

Obviously X-DVE is targeted at people interested in video, although it could easily be applied for animations that never make it onto tape. If you've invested thousands upon thousands in a video suite already, X-DVE might be duplicating what you already have. On the other hand, if you're building up slowly, X-DVE could rocket ahead your capabilities for a relatively small investment.

If you've exhausted the possibilities of the previously cover-mounted Adorage, it's well worth a go. X-DVE can do a lot. Perhaps the most lasting impression it's had on me is a reminder that the Amiga's hardware is still very useful and pretty damn cool. Given the areas of documentation and user interface that I still am less than enamored with, I was tempted to withhold the Superstar award, but then I sat down and flew objects around the screen with the greatest of ease, and thought better of it. X-DVE is a top-flite program that is well supported, and I expect that these difficulties will get ironed out.■

Jason Compton



▼ **Most transitions don't come across well in stills but work well in motion. Time to update that sports clipart library though...**

X-DVE 3.01
Developer: ClassX

System Requirements: System Requirements: AmigaOS 2, 2Mb RAM. Recommended: OS 3, AGA, 68020 or better, 4Mb RAM, FPU, hard drive

Ease of use 84%
Easy enough to handle but not as careful with novices as it should be.

Performance 96%
Astounding.

Value for money 91%
A very impressive feature set for the price.

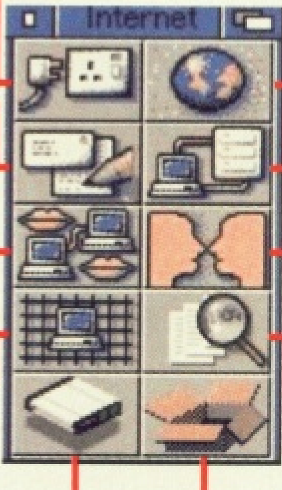
OVERALL
A great video effects package, as fast as it is flexible. **92%**

All You Need For Internet And Comms!

netconnect v2

NetConnect v2 is even easier to connect to the Internet! Launch the new Wizard GUI, choose your modem, enter a few user details and let the Wizard do all the rest for you! Simple! With version 2 you don't even need to worry about the provider - everything is automatic, everything is point and click! ***Amiga Format*** concluded about **NetConnect v1** (June 97 issue): "Almost the perfect package for the Amiga Internet user", "If you need to get online, this is the easiest way to do it" and "It's good value for money too - especially the bundle including the 33.6K modem." We have listened to our NetConnect v1 users, noted their comments and added some other new features. NetConnect v2 is available on CD-rom and floppy disk.

10 Commercial Programs within NetConnect v2!



AMITCP-GENESIS
NetConnect v2 users will be the first people to use this new TCP stack! Based on AmiTCP Pro, we have added a number of changes - new Wizard, MUI based dialler, multi-user support, 'events' control, status window (time on 'net, connection speed), new prefs.

MICRODOT-II
A superb combined email and newsreader within one GUI! Contains all the major features you would expect - MIME attachments, support for POP3/APOP, search function, multiple signatures, multiple user support, Arexx port etc.

AMIRC
Chat online with friends about topics, join conferences, organise mass meetings. The IRC is one of the most addictive elements of the Internet - AmIRC is the best Amiga IRC client.

AMTELNET
Telnet into remote computers (from anywhere in the world) - edit files on a computer in Germany from your Amiga, maintain directories for your web pages, check the status of the network, play online games.

AMTERM
AmTerm is a communications package which allows you to connect to a BBS, to another user (direct link), transfer files via a serial connection (Amiga<>Amiga, Amiga<>PC etc).

VOYAGER-NG
Voted the best Amiga web browser by CU Amiga - supports SSL for securing ordering, HTTP 1.1 (for the fastest web access) fastmem AGA support (use fast mem to store images) and very soon JAVA™, Javascript and AGA fastmem support!

AMFTP
AmFTP is the ultimate Amiga FTP client. Download/upload programs from any FTP site, also supports ADT to allow you to download the latest files from the Aminet and Archie to search FTP sites for files.

AMTALK
A direct chat client for the Amiga. Acts as an online answerphone service for people to leave messages. You can talk directly 'realtime' to friends on the Internet.

NETINFO
NetInfo is a cool tool for analysing the network and the people connected to it - 'finger' your friends to see if they are online, 'ping' servers to find the response speed.

X-ARC
X-Arc is the Amiga's answer to WinZIP™ - automatically decode LHA/LZX/ZIP files, edit the contents of these archives, create your own archives. Full integrates with NetConnect v2!

NetConnect v2 is a state-of-the-art Internet package aimed towards Amiga users wanting to connect for the first time (absolute Internet beginners), those who have been connected a few months (novices) and now, due to the keyfile nature of the software, is suitable for advanced Internet users who want to use the modules contained within NetConnect with their existing TCP stack. **NetConnect v2 enhancements include:**

- Setup Wizard - makes configuring your ISP a doddle. Choose your modem, enter some user details and then the rest of the process is completely automatic!
- MIME Prefs - Central MIME prefs interface means that you only need to setup file types once with on nice interface! This saves masses of time and effort (especially for beginners).
- Control Manager - A central control manager that allows you to store your favourite web and ftp sites, friends, email addresses, fax numbers and then use them within NetConnect modules - Voyager etc!
- Multi-User - Use Genesis/NetConnect with more than one user (a family) and log in on startup.
- New programs - AmTalk, NetInfo and X-Arc (a brand new WinZIP™ style archive management tool. Downloads lha/lzx/zip files from Voyager etc, auto-extracts them into X-Arc's GUI, manage the files).
- Programs are now keyfile based (can be used with any TCP stack - Miami etc)
- Extras pre-configured: MIME types (CD only), datatypes (CD Only), online help files etc
- Dock bar allows you to create multiple dock bars with point and click ease - just drag the icons you have created into the icon bar! NetConnect v2 is pre-setup with its own icon bar for ease of use.
- Programs are now keyfile based (can be used with any TCP stack - Miami etc)
- Printed manual - understand NetConnect and the Internet quickly and easily (advice from NC users!)

NetConnect v2 CD [contains many extras: datatypes, MIME types (for www browsing) and much more] £52.95
NetConnect v2 Floppy Disks [only contains the core programs & online help documents] £54.95
NetConnect v2 Upgrade from v1 [registered NetConnect v1 users only] £call!

vapor software

If you are not interested in purchasing NetConnect you can also buy Vaporware Products individually either by disk, a keyfile sent via e-mail (quickest and cheapest method) or on CD-rom (currently only Voyager-NG and Genesis can be purchased on CD-rom) - CD versions have added extras such as pre-setup MIME types (VNG), HTML documentation etc.

	On CD	By Disk	By EMail
Genesis - New TCP/IP Stack for the Amiga [Available December]	£28.00	£22.00	£20.00
Miami - TCP/IP Stack for the Amiga	n/a	£28.00	£26.00
Voyager Next Generation	£28.00	£22.00	£20.00
Microdot-II	n/a	£20.00	£18.00
AmIRC	n/a	£20.00	£18.00
AmFTP	n/a	£20.00	£18.00
AmTalk	n/a	£17.00	£15.00
X-Arc	n/a	£17.00	£15.00
AmTelnet + AmTerm Package Deal	n/a	£20.00	£18.00

• 5% Discount when 2-4 Vapor products are bought, 10% Discount for 5+

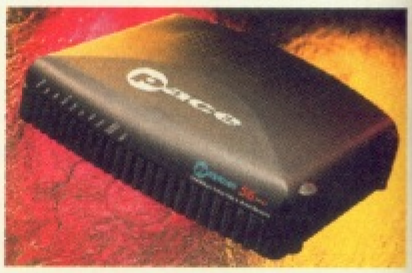
internet informer

Still unsure about connecting to the Internet? Confused by all the acronyms such as 'ISDN'? Confused about the costs? Wondering whether your Amiga can access the Internet? No need to worry any longer - we have released issue 2 of our 'Internet Informer' for Amiga users. A leaflet that offers you all the information you require in order to get your Amiga onto the Internet. Modem choices, software that is available, service providers for the Amiga, questions and answers. It also contains information about NetConnect and what we can do to get you onto the Internet. For your free copy, call us or write to us.

high quality modems

Choose from two high-quality branded modems - the top of the range, award winning PACE 56 or the middle of the range Dynalink modem. Both come with a five year warranty. The PACE modem also ships with free lifetime technical support, UK caller ID (only modem available which supports this) and non-technical, easy to read documentation. The PACE is currently the best 56K modem you can buy, is UK produced and is recommended by the Internet press.

- Quality branded PACE 56 voice modem
- 56000 bps DATA/FAX/VOICE modem - true v34+ Throughput to 115,200 (230,400 for internal) BPS
- Group 3, Class 1 send/receive FAX (14.4)
- V.80 (video conferencing) capable
- Call Discrimination
- Fax on demand
- UK Caller ID
- 10 LED's for full status monitoring
- Analogue Simultaneous voice and data (A.S.V.D.)
- Speakerphone for hands-free operation
- Upgradable ROM chip
- On/Off switch to rear of unit
- Includes headphones/microphones - for voice control
- 5 year warranty
- Serial cable included (with 9 & 25pin connectors)



The above specifications are for the PACE 56K external voice modem. Dynalink 33.6K and 56K are very similar, except for the UK Caller ID support.

Dynalink 33.6K External Voice/Fax/Data Modem £79.95
Dynalink 56K External Voice/Fax/Data Modem £99.95
PACE 56K External Voice/Fax/Data Modem £129.95

modem pack options

Various money saving packs are available. These are all based on either the Dynalink 33.6K or 56K and PACE 56K modem option. Call us for other pack options if you have your own pack idea!

Code	Pack Contents	£ Prices
PK01	33.6 Modem & STFax	£ 89.95
PK02	33.6 Modem & NetConnect	£109.95
PK03	33.6 Modem & NetConnect & STFax	£119.95
PK04	33.6 Modem & NetConnect & Hypercom1 & STFax	£149.95
PK05	33.6 Modem & NetConnect & Hypercom3Z & STFax	£169.95

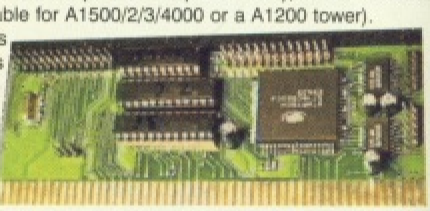
ADD £20 for a Dynalink 56K Modem (instead of the Dynalink 33.6K)
ADD £50 for a PACE 56K Modem (instead of the Dynalink 33.6K)

- All packs come with one month free connection to a major Internet Service Provider
- Choose between the CD or Floppy disk version of NetConnect with your modem pack
- Internal modem available - ISA card suitable for the Boxer.

high speed serial cards — new models! — from.. £44.95

The ***Hypercom*** range of high-speed serial cards offer your Amiga the fastest connection to the Internet, for comms and fax transfers. Available for the Amiga 1200 (these serial cards are placed within the internal clock expansion port - leaving the PCMCIA port and trapdoor free!), A1200 Towers and Zorro-II/III based machines (Zorro version suitable for A1500/2/3/4000 or a A1200 tower).

These cards are currently the fastest serial cards available for the Amiga (upto 460,800bps connection). The Hypercom 3/3Z cards also ship with a buffered high speed parallel port which will drastically improve printing speeds on a laser (4x speed). The Hypercom 3/3Z cards contain a 9-pin and standard 25-pin serial ports whereas the Hypercom 1 ships with one 25-pin port. Serial and parallel drivers included. English documention.

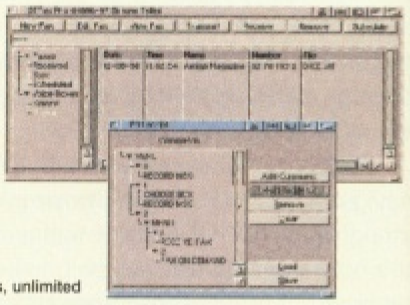


Hypercom 3Z

Model	Machine	Specifications	Price
Hypercom1	A1200	1 x 460,800bps highspeed buffered serial port	£44.95
Hypercom3	A1200T	2 x 460,800bps highspeed buffered serial, 1 x 500K bytes/sec buffered parallel port	£89.95
Hypercom3Z	Zorro-2/3	2 x 460,800bps highspeed buffered serial, 1 x 500K bytes/sec buffered parallel port	£79.95
Hypercom4	Zorro-2/3	4 x 460,800bps highspeed buffered serial ports	£99.95
Hypercom3i	Zorro-2/3	Expansion module for Hypercom 3Z/4 offering 2 x 460,800bps highspeed buffered serial, 1 x 500K bytes/sec buffered parallel port. Just plugs onto the card, no Zorro.	£59.95

stfax professional £29.95

STFax Professional is new commercial fax program for the Amiga containing the sort of advanced features you would find within commercial PC fax software. STFax has been in the shareware for the last few months, and the brand new commercial "professional" version offers even more advanced features plus voice control for voice modems - use your Amiga as a digital answer machine, create a fax on demand service (ideal for small businesses. Allows your customers to contact you at any time and use fax on demand to remotely download facsimile information about your products!) and create advanced voice control scripts.



- Full Fax Features:
  - Support for all fax/modem classes (1, 2, 2.0)
  - Phonebook (store all your favourite fax and telephone numbers)
  - Scheduler (store fax messages to be sent at specified times)
  - Reports (quickly see when a fax was sent and received)
  - Datatypes support for image conversion
  - Printer driver to redirect all print-outs to a fax file (print from Wordworth, Pagestream etc!)
  - Viewer for viewing outgoing/incoming fax messages
  - Fax forward (forward faxes to another machine)
- Advanced Voice Features:
  - Use your Amiga as an answer machine (digital messages, unlimited storage space!)
  - Advanced voice scripting - create your own voice network or fax on demand service
  - Use your modem as a telephone (make and receive calls via STFax Pro and your modem)
  - Remote access (listen to your messages from an external source. ie. from another country!)
  - Caller-ID (see exactly who has called and left you a message)
- Your Own Mini-BBS:
  - One or more secure 'doors' (access areas)
  - Point and click setup
  - Allow users to upload files and send messages
  - Custom greetings and menus

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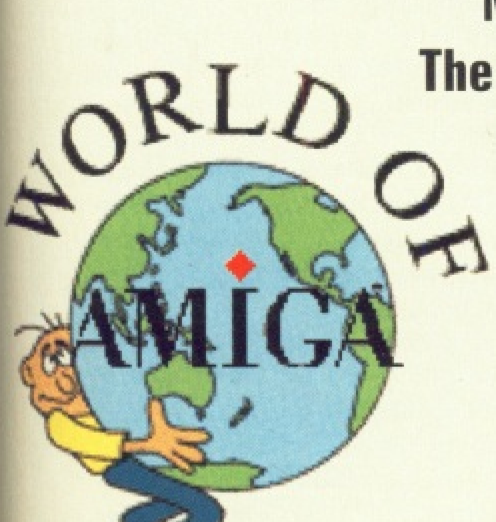
Welcome to THE Amiga show for the UK...

16th and 17th of May 1998 in the Novotel, London

THE WORLD OF AMIGA



Come and see the latest developments... the Index/Blittersoft BoXeR, the Power/DCE A5000, Siamese, PowerUP, Quake, WordWorth 7, Foundation and more.
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See the latest developments of OS3.5!
Network gaming, major news, major prizes.
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Siamese RTG 2.5

■ Price: £99 ■ Developer: HiQ & Paul Nolan ■ Distributor: HiQ Systems ✆ 01525 211327 ■ http://www.siamese.co.uk.

Who would have thought that the Amiga and PC could be such good friends? Siamese attempts to bridge the gap.

Nominated in our 'Stars of 97' awards, HiQ's Siamese RTG software offers an intruiging way to exploit the best points of both Amiga and PC simultaneously: by redirecting the Amiga's graphics to the PC. On the surface it's a cheap and convenient alternative to adding a graphics card, assuming you have a decent PC lying around that is. Digging deeper it offers all kinds of new possibilities.

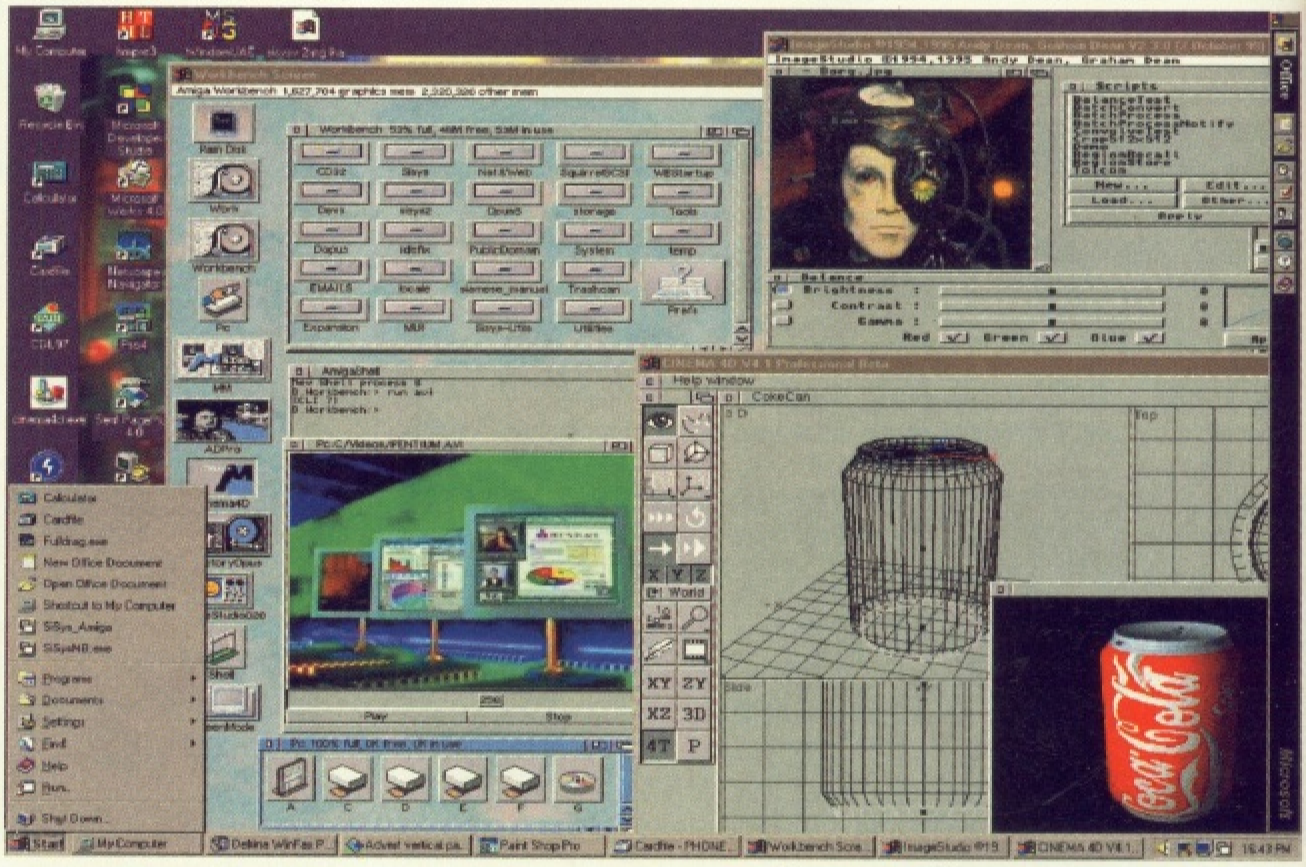
Many Amiga users work with PCs every day, while others wouldn't even piss on a PC if it was on fire. Regardless of whether you fit into either category or sit somewhere in the middle, this is something that deserves every Amiga fan's attention.

However you choose to update your Amiga's display system, you'll need some RTG (ReTargetable Graphics) software. Put simply, this patches the operating system to intercept all the calls to the libraries that draw graphics. Those calls are emulated with the same graphics drawn to the new hardware. In the case of Zorro graphics boards, the two competing software RTG packages are phase 5's CyberGraphX and Villagetronic's Picasso 96.

Siamese is similar but with a major difference. It intercepts the graphic drawing calls on the Amiga and turns them into little codes which it can send elsewhere. It can send the codes via a serial cable or a TCP/IP connection. The latter has some rather important repercussions.

At the other end of the Siamese chain is an IBM PC compatible running the recently-creamed Bill Gates' Windows 95. Siamese sets up a listening client on the PC that receives the graphic codes and interprets them into Windows 95's equivalent calls.

You can say a lot of things about PCs but one thing is certain: their display hardware is currently streets ahead of what the best Amiga graphics boards can offer. Not only do you get your display to appear on the PC's display but you can benefit from the hardware acceleration on the PC display hardware. For example, here's what happens when Workbench opens a window... The Amiga OS first sends a call to draw a big rectangle to be filled in with detail later.

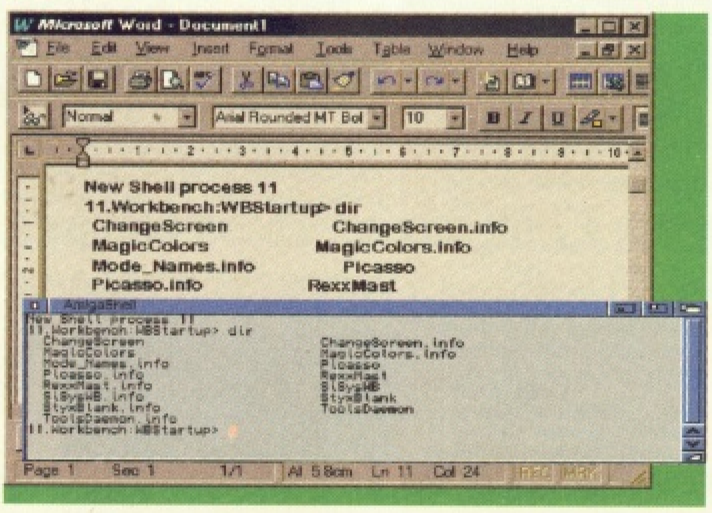


▲ **Here we see Siamese 16-bit support in action through Image Studio.**

Siamese intercepts this and sends a code for a rectangle to be drawn with the specified dimensions.

The client running on the PC takes the code and tells Windows 95 to draw the rectangle. Windows knows about the PC's graphics hardware through the driver and the chances are the card has a hardware function to draw a rectangle virtually instantaneously rather than filling in each pixel. The result is that the window is drawn far quicker than it would be on an ECS or AGA display.

▼ **Sharing of the clipboard allows cutting and pasting from Amiga to PC applications.**



One small catch

Even a slow serial connection can send enough of these codes to make many things happen faster than the Amiga's native display. However, not all the graphic data is those building blocks of course – often there's no other way to draw something than by sending an actual bitmap picture. In this case, there's no getting around it that this will take some time to go via serial and the process will slow down.

For the best possible solution you can add an Ethernet card to the Amiga via PCMCIA or a Zorro slot and network to the PC via a TCP/IP connection. Now we're talking about 10,000,000 bits per second instead of 115,200 bps. In this set-up even the transfer of bitmaps is sufficiently accelerated that things move along very rapidly indeed.

The bonus is that you can also move other data down the TCP/IP connection between the Amiga and the PC such as an Internet connection. Check out Wired World this month for the details on sharing the PC's Internet connection with the Amiga. This will work perfectly in conjunction with the Siamese RTG.

Siamese RTG in a nutshell

To understand exactly what Siamese RTG does, you need to understand what RTG, or ReTargetable Graphics, is all about.

The Amiga has its own custom display hardware and for a variety of reasons it's desirable to replace this hardware with higher specification display hardware. Updated display hardware allows the use of standard PC VGA monitors, higher resolutions, high colour depths up to 24-bit and also high refresh rates for a rock-steady display (no need to suffer the flicker of Interlace or the lazy update of Productivity).

Siamese RTG uses a PC (not just a PC card) to display the Amiga's graphics. Fortunately the Amiga's Operating System uses some basic 'commands' to draw its screens. A command will be given to draw a line from point A to point B for example, rather than a string of commands to plot each pixel. Windows, menus and so on are built up in this way. These commands can be sent over the link between the Amiga and the PC, then the PC software gets on with drawing the screens. When bitmap sections are sent, things slow down, as every pixel must be transferred.

Siamese won't work with games (or applications) that always automatically write graphics directly to the Amiga's display hardware.



And there's more...

The most common use for the Siamese software is to run the Amiga's display inside a window on the PC and so benefit from the better display. The rest of the Siamese suite, as covered in earlier reviews, allows sharing of the keyboard and mouse as well as more advanced aspects like printers and even the clipboard contents. So you have a single monitor, a single mouse and a keyboard which control both the PC and the Amiga.

Unfortunately because of the nature of the RTG system, it's only going to work when programs use the OS to draw graphics and of course this does not apply to most games. I keep a standard 1084 plugged into the Amiga's video output and switch this on as it's required, such as some early-startup sequence editing, games, crash messages and so on.

How compatible?

But exactly how compatible is the Siamese RTG with Amiga software? It's come a long way since the earlier versions. Overall the compatibility is similar to that of the other RTG systems such as CyberGraphX and P96. Generally if your software is quite system compliant then it runs fine, but there certainly can be glitches and strange goings on.

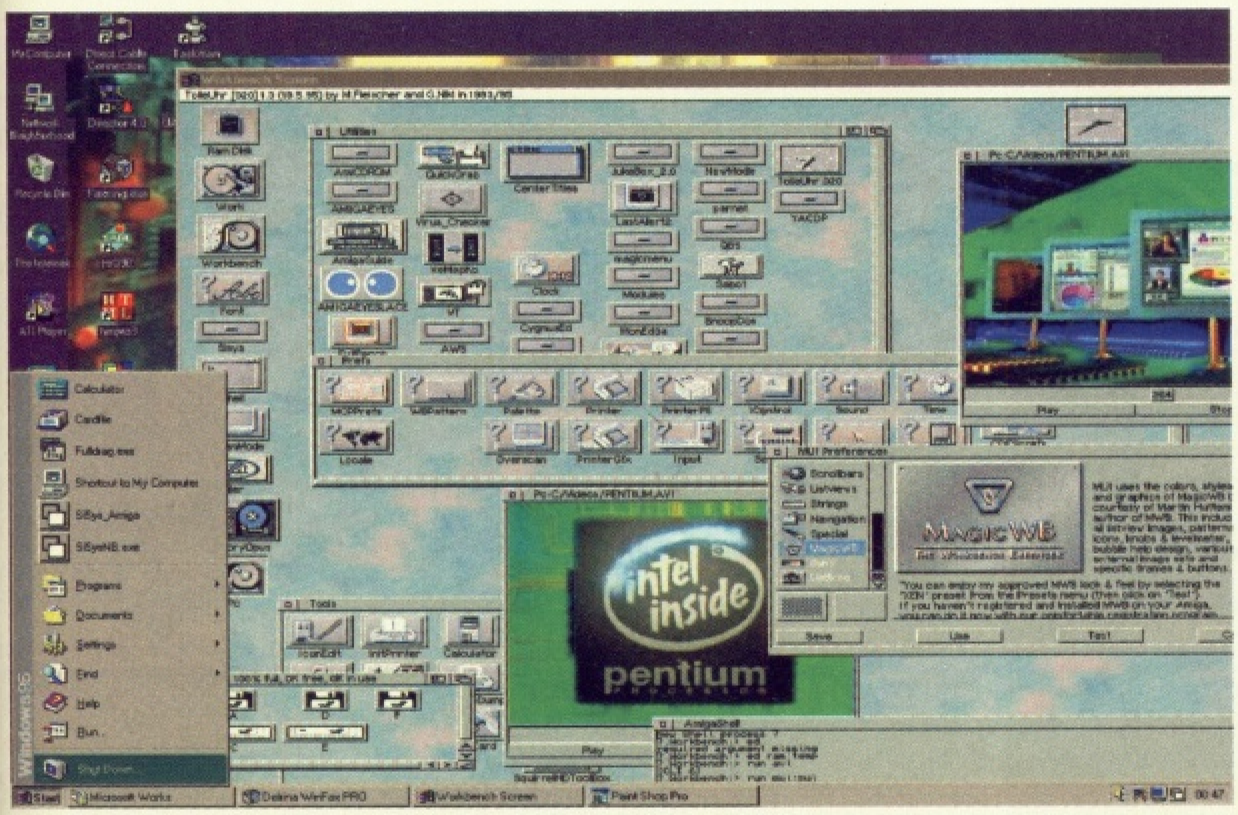
Most often this means lines and GUI elements being left behind. There are also some problems from earlier versions which haven't yet been addressed, such as the lack of icon dragging, lines left behind on Workbench and the Preferences program being too big to fit on a standard PAL screen – which requires Interlace to get to it all. Just as well you can edit the tooltypes to set preferences instead.

Since the Siamese system has moved towards a software only set-up and HiQ no longer manufacture the PC video switcher card, they've implemented a parallel port dongle for copy protection. Luckily it plugs into the PC and has a passthrough so it's inocuous enough. The software also rather sneakily supports the graphic extensions for the trucolour display that CyberGraphX pioneered, also adopted by Picasso 96. That means that CyberGraphX-supporting applications that are happy to provide a trucolour display will render in trucolour on the PC. Pretty cool, even if it is limited to 16-bit.

Imagine running an Amiga browser on the PC screen – using the PC's net connection and displaying it in a trucolour Amiga window on the Windows desktop. It actually does work!

If you're on the Internet and want to talk to other users of the Siamese system, then you can join the Siamese mailing list run by CU Amiga. Send a single line email to listserv@cu-amiga.co.uk with 'add siamese' in the body. Steve Jones and Paul Nolan of HiQ occasionally make themselves available for support issues in the mailing list.

▼ Another function of Siamese is acceleration of AVI playback once again letting the PC do the hard work.



Delivers the promises

Siamese RTG 2.5 offers a great deal and delivers most of what it promises.

However this is a complex piece of software and there will be some issues with Amiga software running over it. Thought of purely as a graphics upgrade, it's not really a better option than a graphics board since CyberGraphX and Picasso 96 work faultlessly with all software. That said it's an inexpensive alternative and can offer far more than just the RTG with the keyboard, mouse, printer and hard drive sharing on offer in the bargain. You can also do some amazing stuff like sending the entire Amiga's display over the Internet and having someone else control the Amiga. It's not reliable enough to act as an X-Windows style system but manned at both ends it can be rather fun.

There's no other software quite like Siamese RTG. If your Amiga usage is limited to OS compliant software and you're willing to lose some old favourites on occasion then Siamese is for you. Siamese is also for you if getting rid of a spare mouse, keyboard and monitor from your PC/Amiga desk is an attractive option, and certainly if you're buying a PC for the first time and don't have the space. All in, Siamese RTG is a startling software achievement. ■

Mat Bettinson

SIAMESE RTG 2.5

System Requirements: OS 3.0 Amiga, serial or TCP/IP connection, PC running Windows 95

Ease of use **85%**
The manual, preferences and installation need improvement, but otherwise it's good.

Performance **97%**
Delivering a staggering array of useful features, it can streamline many operations.

Value for money **92%**
Superb features per pound but software support needs improvement.

OVERALL
The ultimate PC and Amiga integration.

92%

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Infinitiv 1200 Tower Kits

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> The Video Slot Interface adaptor is required to activate the on-board Video slot on the Z2/Z3 boards. Our new design is solderless and has been tested with Picasso IV/CyberVision ScanDoubler and other cards.
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> Any Infinitiv Tower using a Z2/Z3 board with an A1200 based accelerator will require an additional 5.25" bay (see picture)
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> Z3 boards require OS3.1 and will operate in Z3 mode only if a compatible A4000 CPU slot accelerator is used. Any other accelerator forces Z2 mode. Whilst every effort has been taken to give optimum compatibility, we cannot guarantee 100% compatibility with all Zorro boards and peripherals.
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2 board	Zorro II x 5, PCI x 2, ISA x 2, Video (option)	£149.95
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dividual Component Parts

finitiv Tower + Keyboard interface	£ 99.95	Infinitiv uprated PSU	£ 49.95
finitiv 3.5" "Snap-on" bay	£ 9.95	Infinitiv 5.25" "Snap-on" bay	£ 29.95
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wer Adaptor (Non-Zorro Towers)	£ 5.95	Infinitiv Video Slot Interface Z3	£ 39.95
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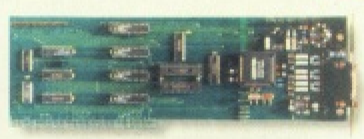
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Prelude

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Hard Drives

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CD-ROM

8 Speed CD-ROM IDE	£ 49.95
16 Speed CD-ROM IDE	£ 59.95
24 Speed CD-ROM IDE	£ 69.95
32 Speed CD-ROM IDE	£ 89.95

Please note that CD-ROM prices may fluctuate

Amiga Computers

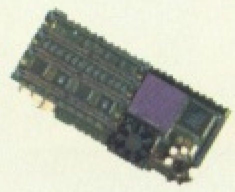


Infinitiv 1500	Infinitiv 1400	Infinitiv 1300
A1200 Motherboard	As per 1300 plus	As per 1300 plus
OS3.1	5 x Zorro II	5 x Zorro III
200W PSU	2 x ISA	1 x ISA
Mouse	2 x PCI	2 x PCI
External Amiga Keyboard	Video option	Video option
Floppy drive.		A4000 CPU slot
		SCSI-II interface
£329.95	£429.95	£599.95

The above Infinitiv Amiga Computers come with English manuals and are fully upgradable with extra Infinitiv parts, CD-ROM / hard drives and accelerators.

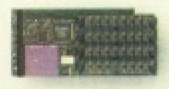
A3000/4000 Accelerators

CyberStorm PPC 180 MHz No CPU	£499.95
CyberStorm PPC 200 MHz No CPU	£599.95
CyberStorm PPC 180 MHz + 68040/25 CPU	£549.95
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CyberStorm PPC 200 MHz + 68040/25 CPU	£649.95
CyberStorm PPC 200 MHz + 68060/50 CPU	£829.95
CyberStorm MKIII 68060/50 MHz	£449.95



All accelerators have built-in Ultra-Wide SCSI and require SIMMs matching in pairs)

phase 5 DIGITAL PRODUCTS



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Blizzard PPC 603 160 MHz 68LC040 @25MHz	£234.95
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Blizzard PPC 603+ 160 MHz 68060 @50MHz + Fast SCSI-II	£499.95
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Blizzard PPC 603+ 200 MHz 68040 @25MHz + Fast SCSI-II	£354.95
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Blizzard 1260 50 MHz 68060 CPU	£299.95
Blizzard SCSI for Blizzard 1230 or 1260	£ 59.95

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Font Machine

AMIGA MAGAZINE SUPERSTAR

■ Price: DM129 ■ Supplier: Haage and Partner ✆ +49 6007 93 00 50
■ http://www.haage-partner.com

Larry Hickmott discovers a painless way of creating colourfonts for titling video, multi-media and Web projects...

Titling is still one area that the Amiga has a strong base for and with programs like this, it is not hard to see why.

Put simply, Font Machine – by ClassX, makers of X-DVE – enables you to create colourfonts containing up to 256 colours.

To help you get started, the program also comes with a number of sample colour palettes in various colour depths (up to 256 colours). Also supplied are quite a few sample anim-brushes (for creating animated text) and static IFF-ILBM brushes which can be mapped to a font's border or its internal fill.

Once a Compugraphic or bitmap font has been loaded into Font Machine, the font can be anti-aliased so edges appear smooth, have bevelled edges added as well as shadows, 3D effects and lots more. All this is achieved by clicking on well labelled buttons that make using the program very intuitive.

Once a change is made, the font is rendered so you can get an idea of how an effect is working with your font. This is useful when applying borders with fills for example. Too thick a border and the font is unreadable while too thin a border and the effect is lost altogether. On a fast Amiga, all this seems to happen in real time.

Animation and ARexx

Thanks to its ARexx interface, Font Machine also lets you create animated text which can be saved as an animation (Anim5 and AnimGIF formats). The animation process is automated and although this doesn't give you a great deal of control over the process, no doubt this is something you could change with some tinkering of the ARexx script. There are also other useful scripts including a tutorial one.

Now you may be forgiven for thinking that you need to be some sort of designer to create fonts with Font Machine. Wrong. Font Machine is unlike programs like TypeSmith (Outline font program) where you can draw the font and all its characters, making it a very technical program to use in many respects. Nothing could be further from this with Font Machine.

This is because Font Machine creates new fonts based on existing fonts in your system Fonts drawer. The program also comes with quite a few samples which once installed, let you get up and running in double quick time. Because there is no actual design of the font involved, the process of creating a look for a font is very much an interactive process, which is why it's so much fun to use.

The only time a little patience is needed is when the time comes to save the font. On a standard Amiga and with a full character set, this process took quite a while but as it's all hands free, you can always go and do something else while it works away.



▲ FontMachine from ClassX lets you create ColourFonts with a few clicks of a button. Well worth the asking price.

In Brief

- Creates from existing bitmap and Compugraphic fonts, ColourFonts containing up to 256 colours for use in Scala, Personal Paint and other ColourFont compatible applications.
- Lets you use Animbrushes or normal static IFF images for mapping onto font.
- Uses ARexx to creates animtext (using Animbrushes) in Anim5 and AnimGIF formats.
- Compatible with CyberGraphx.
- Comes with loads of example animbrushes, textures and fonts.
- Lets you fill independently the border and internal area of a font.
- Datatype support.
- Effects include, Emboss, Bevel, 3D, Shadow, Anti-aliasing.



▲ Creating fonts in FontMachine is as simple as loading a font, applying some special effects to it and then saving out again. Couldn't be easier!

The Interface

As mentioned already, the interface for Font Machine is very intuitive. It's a two layered interface, one for the graphics (the font, palette, textures and so on) and another for the buttons. Those who have used Deluxe Paint and its palette or even ImageFX, will be right at home with Font Machine.

The only time I got annoyed was when looking for the ARexx button, but a quick read of the manual set me straight. I should have said manuals, because two are provided; one for the original Font Machine (v2) and a version 3 addendum.

What to use it for?

The burning question however is what will you use Font Machine for? Well, I can straight away think of two programs that will use the fonts from Font Machine without any trouble, Scala MM300 and Personal Paint, both of which were given away recently on the cover of CU Amiga.

On top of that, you can add to this list any other program that has ColourFont support such as Deluxe Paint and ImageFX. Which means that although Font Machine seems to be a program for video, it really can be used by a wider range of Amiga users which means no one has an excuse not to buy it! ■

Larry Hickmott

FONT MACHINE
Developer: ClassX

System Requirements:
Workbench 2 or higher and hard drive.

Ease of use 91%
Thanks to the decent labels used on the buttons, most of the functions are simple to use although there are still some features which could be more intuitive.

Performance 88%
On a standard Amiga, patience is required when creating whole fonts.

Value for money 89%
Well worth shelling out for.

OVERALL
FontMachine makes creating colourfonts easier than ever. **90%**

STFax Professional

■ Price: £29.95 ■ Supplier: Active Technology © 01325 460 116 ■ http://www.active-net.co.uk

Good fax software? Yes, but a lot more too. We get to grips with the new STFax Professional.

For years there has been very little decent fax software for the Amiga. GPFax was the only commercial program, but this had a non-standard interface and had problems with many Class 1 faxmodems. There were also a few shareware offerings, but none of them were easy to use.

Then the shareware STFax arrived, which worked nicely with Class 2 modems, and offered the sort of ease of use that Amiga programs should all have. Now it's been released as a full commercial program, not only does it offer support for all classes of faxmodems, STFax Professional has answering machine and voicemail facilities when used in conjunction with a voice modem, plus a small BBS facility.

Installation and setting up

STFax Pro comes on two disks, containing STFax itself and MUI 3.8. Installation is very straightforward using the standard installer.

The preferences program takes care of all configuration options. Choose your modem from the list provided, or use the default settings if your modem is not listed. I was surprised to see my Motorola not listed, but it worked perfectly with the default settings.

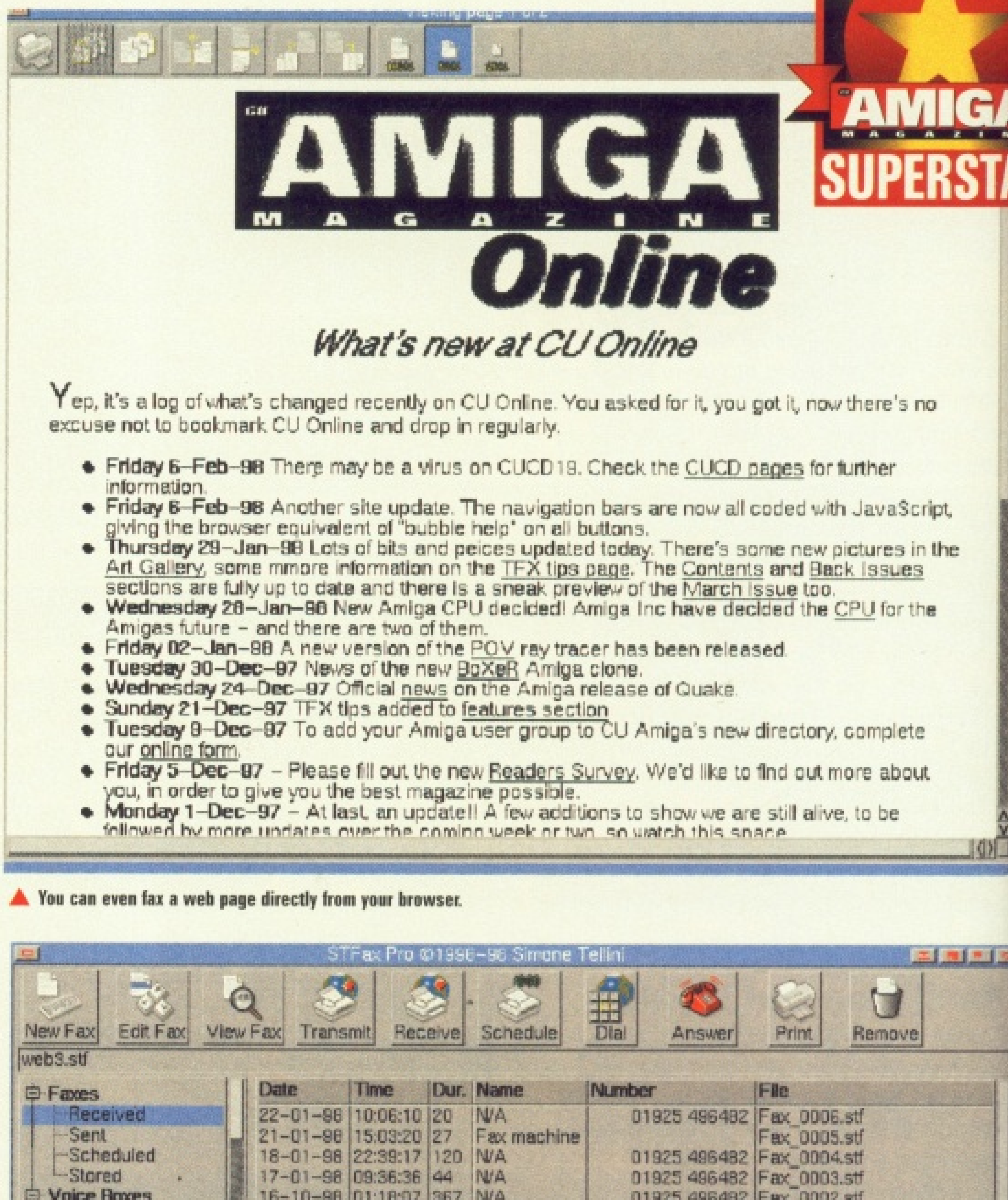
The only snag was the modem taking a long time to reset, this was fixed by reducing the modem timeout in the preferences.

Fax

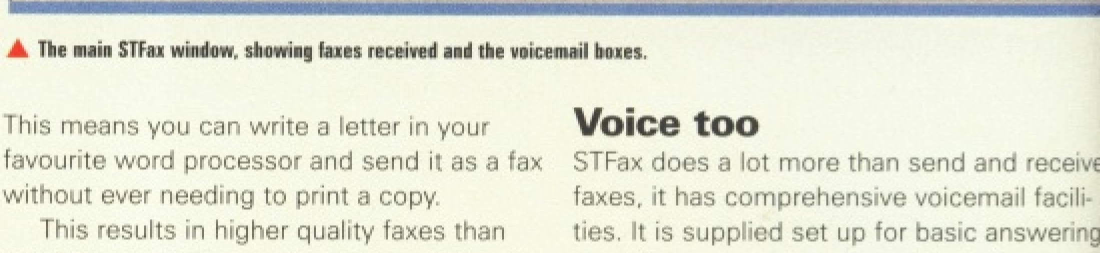
Once installed, the fax side worked immediately. This is the first time I've tried a fax program and been able to say that.

Receiving faxes can be done automatically, or by pressing the Receive button when you answer the phone and hear it's a fax call. Once the fax has been received, it appears in the list of received faxes, from where you can view or print it. There is also an option to automatically print each fax as it is received.

Sending faxes is done in a number of ways. You can create the fax within STFax by importing a text or graphic file, or you can write it directly in the text editor. Faxes created like this can have a header added to each page, and a signature appended to the end. Alternatively, you can create a fax in any program that prints via the standard Workbench printer drivers an 'print' it to STFax.



▲ You can even fax a web page directly from your browser.



▲ The main STFax window, showing faxes received and the voicemail boxes.

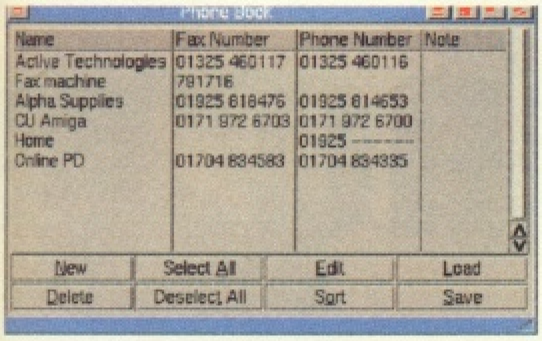
This means you can write a letter in your favourite word processor and send it as a fax without ever needing to print a copy.

This results in higher quality faxes than sending a printed letter through a standard fax machine, since it avoids the scanning process of a fax machine. Once you have created the fax, you are asked for the number to send it to, and given the choice of sending immediately or scheduling it for later. So you can create all your faxes during the day, for transmission in the evening.

Voice too

STFax does a lot more than send and receive faxes, it has comprehensive voicemail facilities. It is supplied set up for basic answering machine usage, all you need to do is record the greeting message, but much more is possible via its scripting interface.

Multiple voicemail boxes with touchtone menus are easy to create, making this an ideal addition for a small business. Each mailbox can have a separate password, allowing users access to their messages

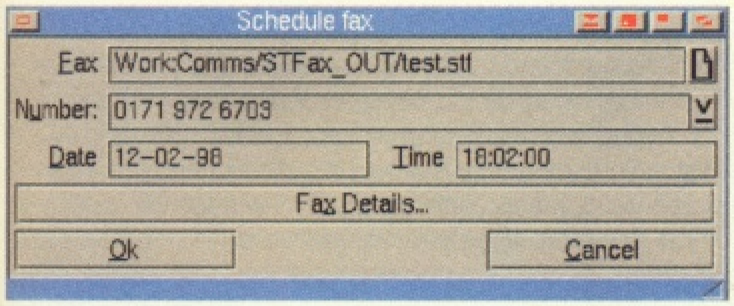


▲ The phonebook: Add your favourite fax and phone numbers here. The name will show up on incoming calls if you have CallerID.

Class 1, 2 or 2.0?

Virtually all fax machines and faxmodems operate with the Group 3 fax standard, but within that standard, faxmodems come in three variants. Class 1 is the most simple, with the faxmodem leaving a lot of the work of encoding the fax data up to the host computer. Class 2 modems have this capability built in.

This means that the computer experiences a higher load when sending or receiving faxes with a Class 1 modem, often disabling multitasking on a lower powered machine. Class 2.0 is a variant of Class 2. STFax will normally détect the modem class automatically, but it does have an option to force Class 1 usage if you experience problems.



Faxmodems vs. traditional methods

Using a faxmodem with STFax is not the same as using a standard fax machine or answering machine.

A faxmodem is more convenient for sending faxes generated in the computer, but you are limited to such documents unless you have a scanner. STFax has an ARexx port so it would be simple to use the combination of a scanner and faxmodem to send any document. Receiving via a faxmodem is better than a fax machine, plain paper printouts are far more durable than expensive thermal fax paper.

The situation with voice calls is more complicated. Whilst STFax offers facilities that no ordinary answering machine can offer; it is at the expense of sound quality, the voice sampling and playback is handled by the modem itself, and the quality is limited.

Whilst you can record your greeting messages with a normal sampler and import them into STFax, the playback is still not as good as a tape.

from any touchtone telephone.

There are also options to execute ARexx scripts after receiving each fax or voice message, making forwarding received messages to another number, or via email, another option when away from the phone.

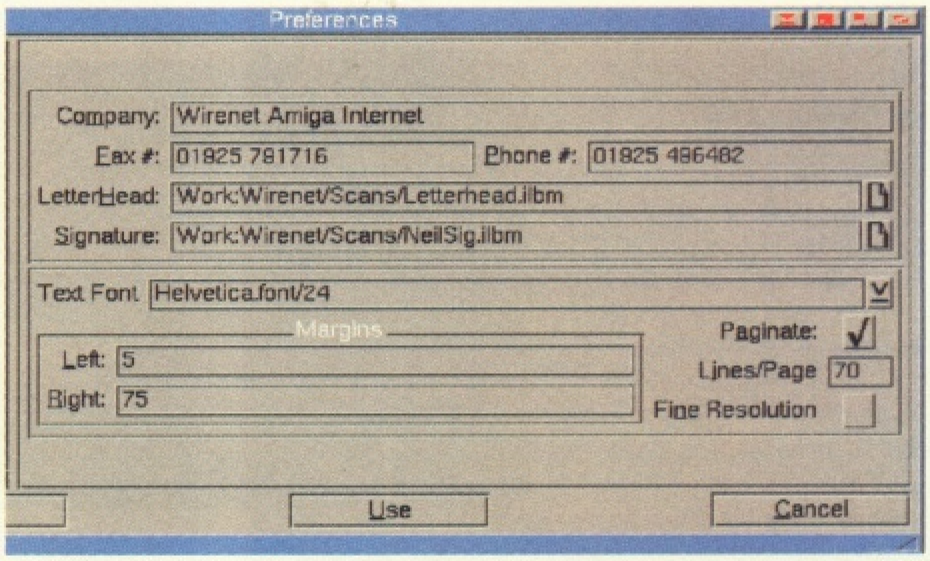
It isn't restricted to simply leaving messages either, you can just as easily create faxback options where callers can request copies of previously created faxes.

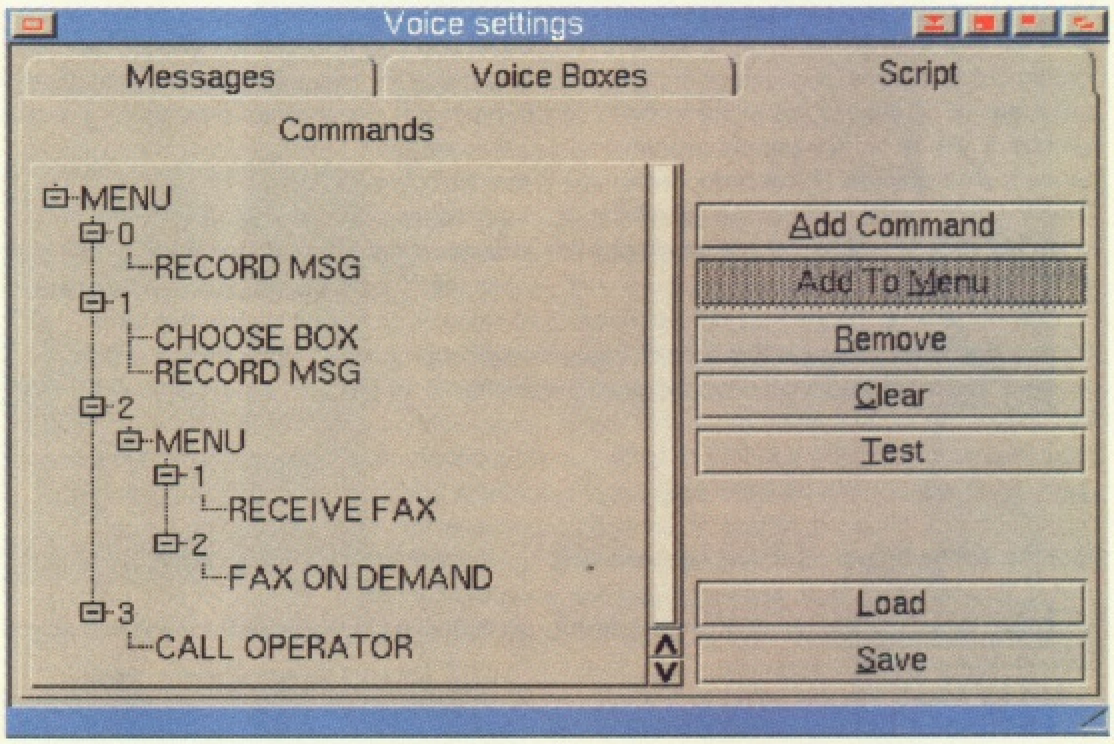
If you have Caller ID on your telephone line, and a compatible modem, then you can even leave customised messages for specific callers.

And there's more...

STFax Professional also has a small BBS system built in. This could be useful for people who want to exchange files without using Internet email, such as businesses exchanging files directly with customers.

Unfortunately, many modems have trouble distinguishing between a fax call and a data call, so its uses are limited right now.





However, STFax is being actively developed. The author responds quickly to questions and requests from users and has set up a support mailing list for Internet users.

Conclusion

This is an excellent application, that is both powerful and easy to use. costing about the same as a cheap answering machine, it really is a bargain.

Even if you don't own a modem, the combined price of a modem and STFax is still less than a low end fax machine, although you would need to consider the advantages and disadvantages of faxmodems compared with the traditional solutions. ■

Neil bothwick

STFAX PROFESSIONAL

System Requirements:
OS 3.0+, 2MB RAM, MUI 3.8 (supplied)

Ease of use 89%
Fax and basic voice answering works as supplied. Voice scripting requires slightly more effort from the user.

Performance 92%
Fax quality; very good. Voice quality; depends on modem. Apart from teething problems with BBS, it did all I asked.

Value for money 97%
A professional piece of software, with a price tag only slightly above most shareware.

OVERALL
An excellent program for use in the home or small business.
94%

CD-ROM Scene

Andrew Korn is back on the scene with a top little assortment of compact discs. Those of you who are privileged possessors of CD-ROM drives, read on...

Aminet 23

■ Available: Weird Science ✆ 0116 246 3800
■ Price: £10.99

So Urban Muller's Aminet at last reaches the magic 23. Has it really taken three months to fill the last disc? Perhaps Christmas, New Year and RAID array crashes at Aminet HQ might have something to do with it. Alternatively it might just have taken that long to sort through the tide of games, mods and pics that have been flooding into the archive recently.

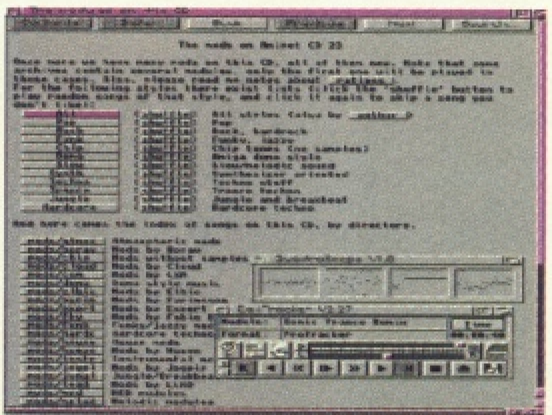
The price we have to pay for the Amiga being so famously good for creative types is that we are deluged with material from creators fair and foul. Trying to get anywhere amongst the endless vastness of the pics and mods directories is like trying to find Atlantis, a dim hope of wonders sunken beneath a grimey sea of diaorrhitic pollution. Where would we be without the lad Muller to jab his stick in and stir 'til the pearls bob up to the top?

The impressive thing about the Aminet discs is the more irrelevant the subject has become, the more persuasive the presentation. When the Aminet discs first came out, there was just no doubt, you had to have them. Each was a treasure trove on a polycarbonate disc, filled with some of the very best the Amiga had to offer. Now everyone is at it, downloading stuff, sticking it on CDs, whatever. Who, but the completest, needs to stick to Aminet CDs?

I do for a start. I'm not going to get out my stirring stick, so I will let the admirable Urban do the job for me. The simple but exemplary front end has developed as the disc series progresses and has been honed to a masterpiece. The whole disc is accessible from a PowerGuide document which will de-archive the files to your hard drive, run many things, and activate the appropriate player for a project.

In the Aminet drawers this month...

biz 16Mb	hard3Mb
comm32Mb	misc45Mb
demo118Mb	mods158Mb
dev23Mb	mus10Mb
disk5Mb	pix228Mb
docs75Mb	text5Mb
game149Mb	util39Mb
gfx45Mb	



Aminet 23

There is a thumbnail database program for viewing the pictures folder as easily as possible, and charts which list games, demos and mods in order of the ability of the software to run cleanly from disc and the compilers personal feelings about the quality of that software.

In terms of content Aminet 23 is not a wonder. It has Adoom, and a promising first batch of PPC programs, including the latest WildFire with Benoit plug in, a Storm Assembler tutorial, Vbcc free ansi C code compiler for PPC, an early Fastview for PPC and a Dhrystones program for making sure the bloody thing does run fast. It looks like 24 will bring us 10 versions of Doom and another few dozen PPC apps though.

It's difficult to make a valued judgement on the content of an Aminet disc because it so varied, as is the opinion of the end user. Personally I found it less exciting than many Aminet discs, while still being too full to not be stuffed with interesting things anyway – including another commercial release, Turbocalc 3.5. As always, Aminet is a winner. If the bad discs are this good, who's complaining? **86%**

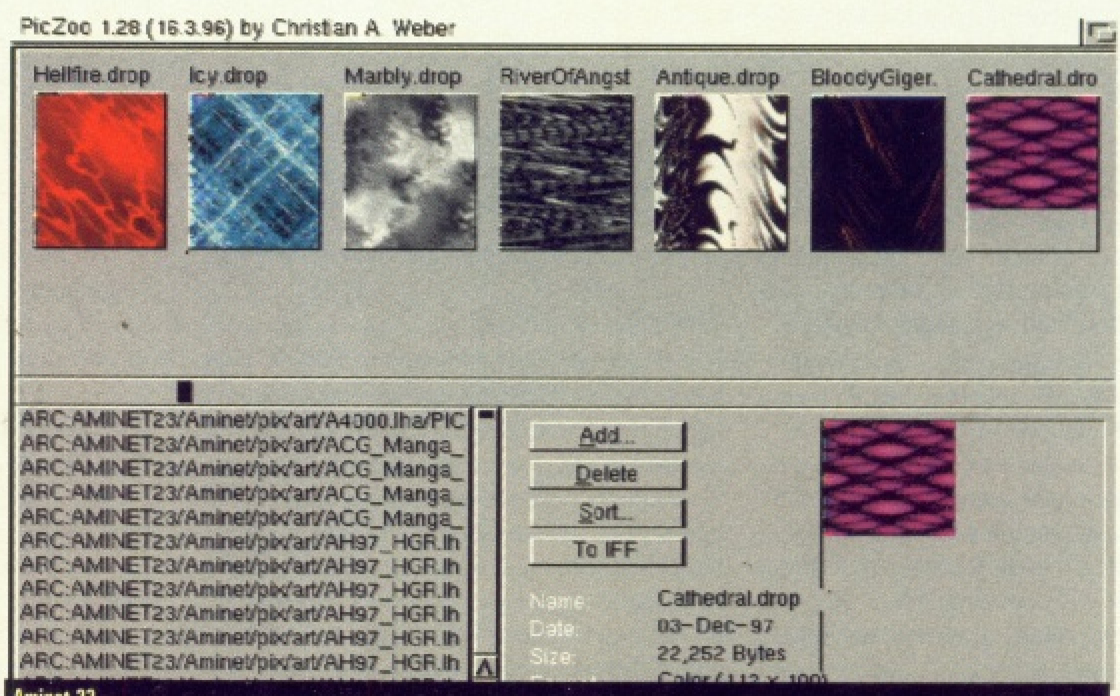
20,000 Web Graphics

■ Available: Epic Marketing ✆ 0500 131 486
■ Price: £9.99

Here's something I am sure we don't see enough of, Amiga companies selling generic CDs. This is produced by a PC CD-ROM firm, has Windows(tm) CD-ROM written on it, but as a simple collection of GIFs it can of course be used on absolutely anything.

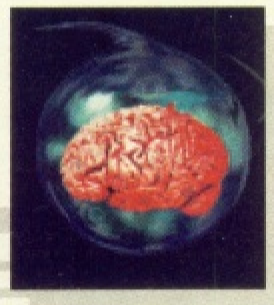
There is no Amiga front end, but is very straightforward to browse through the gifs with a file manager such as OPUS. Certainly a proper thumbprint program is a considerably more useful solution. Luckily such programs are not hard to come by; you can always set your computer cataloguing the CD and go out for the afternoon for a bit of sunshine and fresh air.

This is one of those CDs that gives you exactly what it says on the box. The collection is split into GIFs (oddly including many JPEGs) and animGIFs, and covers the general range of images most commonly used. There are large numbers of bullets, buttons, borders, arrows, letters and dividers each in



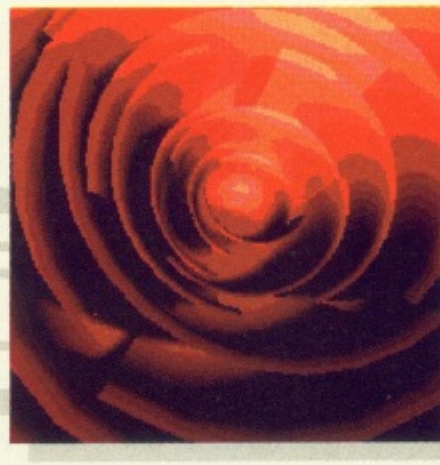
Aminet 23











20,000 Web Graphics







a variety of colours, clearly designed for HTML page layout.

The animGIF drawer contains much the same sort of thing as the GIF drawer, but they move. Here you will find plenty of spinning letters and bullet points, and a far more useful selection of spot illustrations than in the static GIF drawer.

The GIF drawer has a small collection of 'object' images, OK if you want a star symbol or an image of a flower, but not much else. In the AnimGIF drawer there are animated versions of most national flags and everything from flames and men at work signs to spinning beach umbrellas and pulsating brains. There are a lot of really good animations in here, and any Webmaster should be able to find a thing or two to pep up their site.

It would make the disc more useful to Amiga users if there was some convenient way of seeing what was available. Web Explosion came with a printed catalogue, but that was rather more expensive. With the space available on CDs, it would be nice if Epic could persuade the company that made this disc to stick a few hundred kilobytes of extra data on the CD to give it an Amiga front end of some type – but then this lot don't even appear too bothered about MACs.

If you can put up with sorting through the disc yourself, 20,000 web graphics is a cheap way to get an excellent selection of imagery. The more serious Web designer may consider it worth investing the extra in something with a catalogue. **85%**

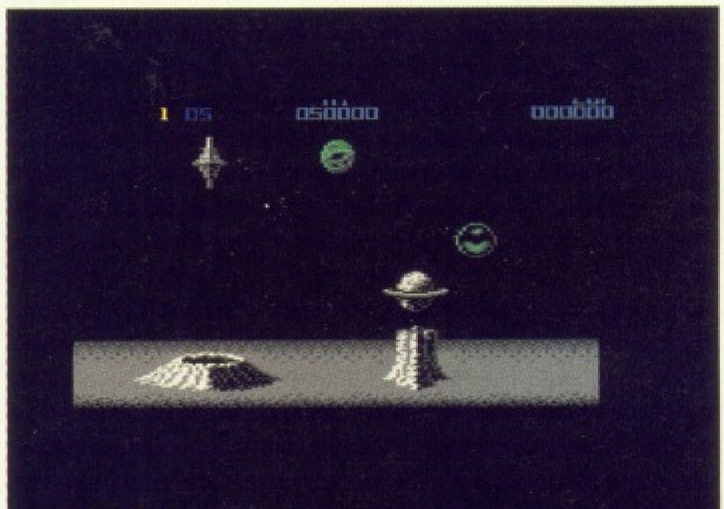
Speccy Classix '98

■ **Available:** Epic Marketing ✆ 0500 131 486
■ **Price:** £10

Here's another one of those multi format discs Epic put out for Amiga users and 'PC abusers'. On it you will find a bunch of executables for each format and a large shared resource of files for them both to act upon. In this particular case, that resource is a vast collection of games.

Open the games drawer here and the first thing you will notice is that the name of this disc is rather misleading. You might be expecting this to be a Spectrum emulator collection, but in fact it is a Commodore 64 collection by pretty much equal measure. There is a small collection of emulators of each, which can be run straight from the CD. The quality is mixed, it would have been nice to see the compilers come down in favour of one or other emulator, but it won't take you too long to try them all out and determine which one is the best. My tip would be for Speculator Spectrum emulator and Frodo Commodore 64 emulator.

Once you load in an emulator, you'll want to load some software too, and this is where snapshots come in. Once a program is loaded into the emulator via an ancient tape or disk drive, the emulator allows a snapshot of its memory to be taken. When this snapshot is reloaded, your emulator will be running that software. Most emulators come with a small collection of freely distributable (or thereabouts) snapshot images, but they aren't what people want out of an emulator. What is the point of emulating a Spectrum if you can't play Doomdark's Revenge? With this disc you can. Rather than having to scour the Internet to download pirate snapshot files of old games, you can find them all here. This disc has an unbelievable collection of games snapshots of just about every classic title you can think of.



Speccy Classix '98



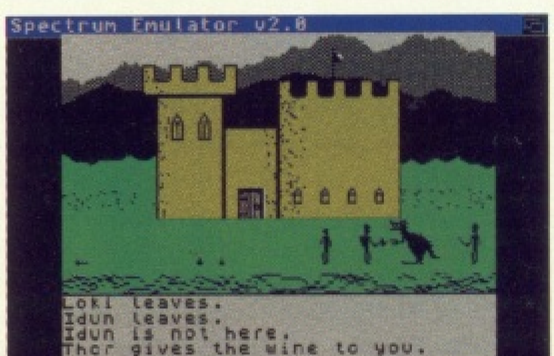
Speccy Classix '98

There is of course the point that they are pirated. Distributing a snapshot in this manner is a blatant breach of copyright, albeit one no-one actually seems to mind. It is a killer on Amiga market when people assume that it is dead and therefore feel free to put out an emulator for the PC with a bunch of old games that some Amiga dealers are still trying to sell, after all this is taking money from an active market through copyright piracy. In the case of the Spectrum and Commodore 64, there isn't a market left, so there is probably no-one getting hurt.

Discs like this don't tend to call down the ire of games publishers, and I am told that companies producing these sorts of discs give copies to a lot of programmers pleased to see their old work but hear very little from anyone who wants a copyrighted title removed. It remains a breach of copyright, the morals of which your own conscious can decide upon.

There is a real appeal in playing some of those ancient games on an Amiga fast enough to get a bit more speed out of them. There are a few games there that are actually still genuinely good to play, and there are others which can gain a new, if temporary lease of life – Lunar Jetman turned out to be a much better experience running twice as fast as it did on the Spectrum.

I'm going to get on my moral high horse and put this disc aside – but not until I've played one more game of Doomdark. Oh yeah, and Tir nan Nog. Oh wait, and Rockstar ate my hamster. Damn. **89%**



Speccy Classix '98

DPaint5 CD

■ **Price: £19.99** ■ **Supplier: Epic Marketing © 0500 131 486** ■ **http://www.valivue.demon.co.uk**

Deluxe Paint: the program which for nearly a decade was synonymous with the Amiga. A funny thing happened to it though... everyone forgot about it.

Deluxe Paint 4 represented a sort of peak for DPaint development – it was doing as much as you could conceivably do with the ECS chipset. For straight animation, it was the package to use. And you could even muck around with HAM, although I remain unconvinced that anybody actually knows how HAM works.

DPaint5 was developed and released at a very dicey time for the Amiga (that's a constant theme); it was 1994, the bankruptcy of Commodore. The original author had moved on and the source code was picked up by a new team. They laboured to bring DPaint into the '90s, with some modicum of display database support, an ARexx interface, 24-bit data handling, and Anim8 (AGA 256 color) animation tools. But Electronic Arts was unsure how much they wanted to push the product – it wound up being marketed by their children's software division – and placed side by side with the dominant paint package of the day, Brilliance. DPaint5 looked sluggish and rather old in comparism.

Been a long time

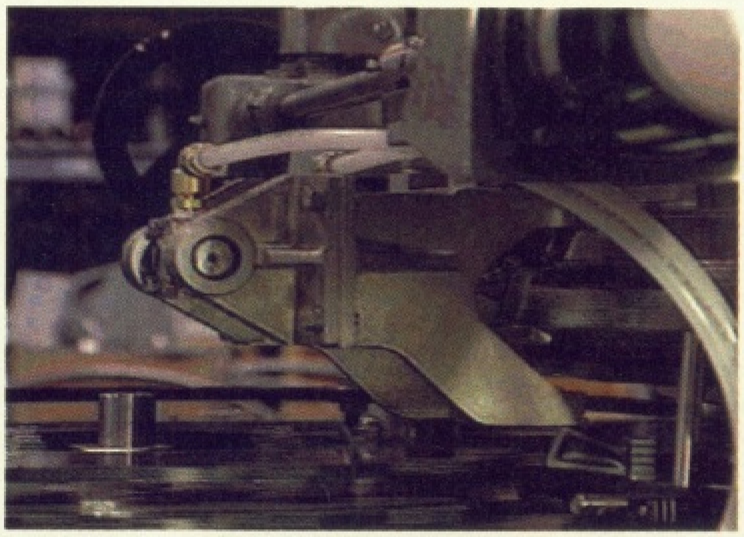
The bad news is that we haven't heard anything from Brilliance for years now and DPaint5 is no faster than it was in 1994. The good news is that the Acid/Epic re-release on CD is a good deal more affordable, making DPaint5 a more attractive option as a part of your Amiga's array of art tools.

Most people know that these days Personal Paint is the king of the 8-bit paint world, if you're looking for a 24-bit paint program you can try out XiPaint, which is quirky and very German. DPaint5 is an uneasy middle ground between these two. It lacks the up to date feature set of PPaint and is not a truecolor paint program as XiPaint is, but it can store true 24 bit data while your workscreen remains 8 bit, and offer all the power and familiarity of DPaint, which many people still swear by to this day.

Aside from offering access to a display database rather than the hacked together screen option list of previous versions, DPaint5's biggest changes are in brush handling and paint tools. Selecting a custom brush from a region of a picture was made considerably easier. And the airbrush tool broke out of the single setting mould and allowed custom brush pressure and 'natural' tools like oilpaint and chalk to be used for freehand drawing. DPaint5 can be used on CyberGraphX screens, although the stability is questionable and some operations actually seemed to take far longer, such as simply loading in an image.



▲ Ahh, that old familiar toolbar – the one that started them all.



▲ Dpaint shows its ability for illustrations of metal and stuff.

Unless you have a special need to be in a very high screen resolution, I would have to recommend sticking with ECS/AGA modes. DPaint5's ARexx interface is remarkably complete for a first effort. Paired with DPaint's legendary animation capabilities, there are a number of intricate effects you could accomplish by linking DPaint with, say, ImageFX or a 3D program like Cinema4D.

The failing of DPaint5, which undoubtedly kept it from being a runaway success in 1994 and still hinders it today, is its speed. The additional overhead of the 24 bit buffer and new capabilities (and new programmers) have really impacted on what was a lean and mean program. Some of the problems seem to be issues of optimization – the ellipse tool, for example, takes an unforgivabley long time to operate even on an 060. This sluggishness is what keeps DPaint5 from seeming like such a great idea. The CD re-release comes with a full black and white 300+ page printed manual, which is a very thorough exploration of all things DPaint. It's ring-bound so it lies flat for easy reference – the downside is that somebody didn't check the clearance very well, and the occasional letter or two gets chopped off on a number of pages by the binding holes.

DPaint5 has aged fairly well, the problem was that it wasn't a must-have program to begin with. Its feature set, while expanded, still lost a lot of ground to Brilliance, and years later Personal Paint is doing some other things better than DPaint5 can.

The price is just about right, considering DPaint5's down sides. I'm inclined to recommend the package for the manual alone – many programs adopted the DPaint feature set wholesale, so learning about them and about Amiga graphics in general through a very professional manual for the price is a decent deal, considering PPaint no longer ships with printed documentation. ■

Jason Compton

DPAINT5

System Requirements: AmigaOS 2.1, 4 Mb RAM, hard drive. Recommended: 68040, AGA, additional RAM.

Ease of use 94%
Between the documentation and the very familiar interface, DPaint is a breeze.

Performance 77%
Behind the curve now as it was then. Value for Money

Value for money 90%
The price point is appropriate. The manual alone is worth it.

OVERALL
A faded moment for the old champ, but the re-release is a good deal.
83%

PD Scene

PD Scene-ster Steve Bye chooses to get out his joystick and muck about with it for a living... hard life isn't it?

★★★★★	Totally blinding
★★★★	Good
★★★	Average
★★	Substandard
★	Oh dear

Monopoly V1.6

Type: Board game sim
Available from: Norwich PD. 43 Motum Rd, Norwich, Norfolk. NR5-8EH
Tel: 01603 504 655
Price: 65p + 50 P&P

This version of the classic board game has been around for some time now, but it is probably the best non-commercial one I have seen on the Amiga. The game supports 2-4 players, of which any mixture of human or computer controlled player can be implemented. Three versions of the Monopoly board are catered for, Aussie, Yank or Limey, the only difference between these versions are the currency and property names.

The opening screen of options also allows you to configure a few of the rules, one of my favourites here is 'Jackpot on Free Parking' If you land on Free Parking you get a lump sum of cash from all the fines paid in by other players, if any.

The other main option here is whether to limit houses and hotels. In the real board game you are limited to how many physical houses and hotels there are, in this computer version you can choose. Once you have set up your options you can save them if you like and then type in the players names and choose your play tokens before starting the game proper.

Once the Monopoly board is displayed the first real disappointment hits you. The graphics are crap, they are not horrendously crap but they are just darn crap. Also there are no names on the properties, which can make life frustrating. The NTSC sized screen used hasn't helped the programmer here, but as he is American and NTSC is their screen mode I suppose he had no choice? At this stage most will be put off the game.

Especially when you hear the so called sound effects! They are dire to the extreme, what few there are. But once the game gets under way you forget all about that superfluous stuff and you soon realise you can in fact have a really good bit of fun, even just you against the computer, though the computer is fairly easy to beat.



Monopoly

When you consider that the game is a full and totally free gift to the world you actually start to like it a lot. Monopoly V1.6 can never replace the fun of a real physical board with all those fiddly bits and 'real' paper money but for sad lonely gits like me it can help replace real humans, which is something the real-life board cannot do.

In the supplied docs the author begs Parker Bros, the copyright holders of the Monopoly trademark not to sue him. If this version had better sound and graphics they may well have! As things stand I think he should be OK. ★★★

European Player/Manager

Type: Football management
Available from: Norwich PD. 43 Motum Rd, Norwich, Norfolk. NR5-8EH
Tel: 01603 504 655
Price: 65p + 50 P&P for demo. £3.95 +50p P&P full version

This game was originally called British Football and was a pretty tame affair with very few options and little to offer, but this huge update and name change makes it a virtually different game.

The game is now set in the European League and your aim is to slug it out from division 3 to the Premier League. You can choose to be any team in the 3rd division, which includes 7 British teams. The main menu of the game is along the lines of the great Premier Manager type games and is easy to negotiate with most of the usual options such as Finance, Fixtures, Squad, Tables, Tactics and Load/Save. In the Squad screen you can buy or sell and train players and set up your tactics for the following match. The match itself does actually lend to a little interaction.

Initially the play screen is the Football Manager type timer and score line, but the difference here is when your team has a shooting chance at goal you take over the reigns and can actually shoot at goal using a point-ometer. It's not all that skilful, but it does add a little to the gameplay and breaks up the monotony of constant text screens, which seem to be quite common in this type of game.

Overall EPM is quite good but there is something lacking to make it a cracker, but nevertheless it is worth it if you are a football nut. This demo stops at 19 weeks but you can load your saved games into the full version if you buy it. Fair exchange, no robbery I reckon. ★★★

Geenie

Type: Platform game
Available from: Underground PD. 54 Carmania Close, Shoeburyness, Essex. SS3-9YZ.
Tel: 01702 295 887
Price: £1.50

Geenie is basically a joystick controlled green blob with eyes and legs, having said that, he is quite cute and well drawn, as are most of the visuals in this nice little game. Aimed, I would of thought, at the slightly younger player, the idea is to collect 10 coins to complete a level.

Each level is set on a pond of some sort with stones that tend to dip under the water



European Player Manager

and then re-emerge slowly. If you jump on a stone that is submerged you are sunk, so to speak, and lose a life.

You make your way around the pond collecting bonuses and goodies within the time that is allotted.

After each level you are given a password so you need not do it all again next time, thanks for that. The 'passwords' are actually digits, about 20 of the swines for each level, so write it down carefully or next time you'll lose your level and have to replay it. There's not much more to add except that the whole game is very well constructed and great fun, though I would guess that its longevity is rather limited.

This was very nearly a cracker. ★★★★★

Death Angel

Type: Shoot-Em-Up

Available from: Underground PD. 54 Carmania Close, Shoeburyness, Essex. SS3-9YZ.

Tel: 01702 295 887

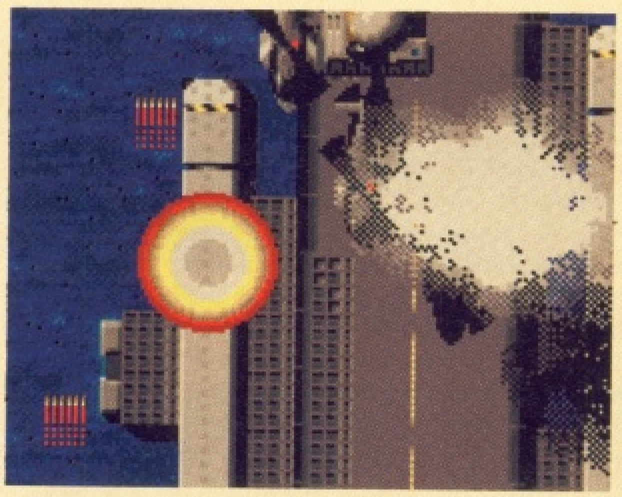
Price: £1.50

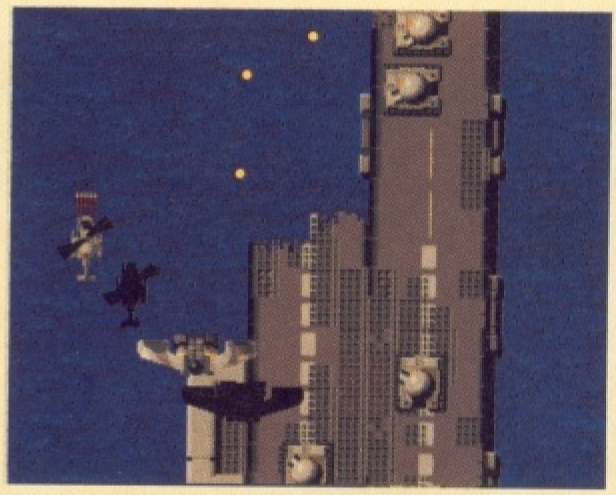
Game of the Month

What a sensitive little title. This is a love story about... Na, only kidding. This is your actual gun-ho, killing machine, death or glory, boys own type slaughter house of a game, yes, good innit?

Remember the game Flying Shark from many moons ago? Death Angel is very similar to that. You move up the scrolling screen in your trusty attack copter equipped with unlimited cannon, lasers and missiles and try your best to destroy virtually anything and everything that get's in your way, and some that don't as well. There's ships, tanks and other aircraft on offer for you to reduce to molten metal at the flick of the joystick button.

That's about how deep and meaningful this game get's but that's all you need in this cracking little game. Although the difficulty level is set very high you will still have immense fun getting through each level. Some extras I noticed are things like clouds obscuring your vision, which often costs you a life if you do not get out of it fast, and even worse, if you get too frenzied with your joystick and start weaving all over the screen like a psychotic kamikaze the game causes you to lose control of your craft and then it disappears off the screen for a few seconds. I presume this isn't a bug? Whatever, it's pretty annoying when you have to weave all over the place to avoid the hoards of shells, tanks, clouds, aircraft coming at you like hellfire anyway. Phew, I enjoyed this game as you can well imagine. Right, I WILL get past level two...★★★★★





Burst a Marble

Type: Puzzle game

Available from: F1 Software. 1 Lower Mill Close, Goldthorpe, Rotherham. S63-9BY.

Tel: 01709 888 127

Price: 80p plus 75p P&P

Apparently after playing "Bust a Move II" on a Sega Saturn the prospective author of Burst A Marble thought the Amiga community should get a taster so he got himself a copy of Blitz Basic and here is the result. BAM is a very addictive and playable game, with slightly naff, but functional graphics and sound effects.

In real life, little marbles or balls are extremely boring, unless you are a small furry animal I suppose? But in the world of computers and consoles people tend to love them, especially if they can aim a point-ometer (again?) at a bunch of other marbles and get two or more in a line so they burst! That is what you have to do in this game and it does work extremely well. A game is completed when you or your opponents screen is cleared, or your screen becomes full up with marbles.

There are twelve 1 player levels and the author promises a level designer soon. It looks like a possible classic is in the making with this one. ★★★★★



Burst a Marble

Captain Custard

Type: Shoot-em-up

Available from: PD Power. 15 Lovetot Ave, Aston, Sheffield. S26-2BQ

Tel: 01374 150 972

Price: 50p +75p P&P

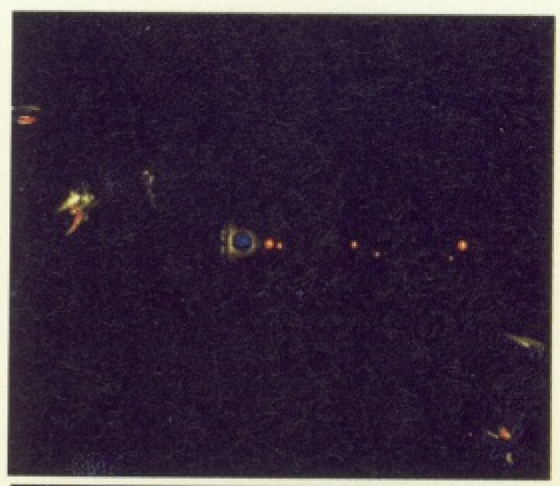
This is a free game that is most definitely worth your attention.

Although Cpt. Custard is nothing more than a highly configurable Asteroids clone with superb sound effects and pretty good graphics, it's mean and it's fast paced, but ultimately it is slightly repetitive and becomes boring quite quickly – similar to Asteroids in fact – though I rate the Captain a lot better than the original, that was always yawn inducing for me anyway.

To illustrate the complexity of the game here are the instructions: fly around in Space. Shoot everything. Don't let anything hit you. Get a higher score than last time.

The only time you need to think in this game is when reading the config screen. Here you have a myriad of options such as setting the maximum speed of your ship, acceleration, friction, banking drag, mines, bullets, stars, enemies, reflex etc. etc. etc.

Don't get me wrong, Captain Custard is a pretty good game for people with a bent for this kind of genre, but unhappily, not for myself. My personal opinion? Boring. Many will disagree though. ★★★★★


Captain Custard

PD Utilities

This month we've managed to lay our sweaty little hands on another batch of PD goodies, and Steve Bye is the lucky chap who gets to test them all out.

★★★★★	Totally blinding
★★★★☆	Good
★★★☆☆	Average
★★☆☆☆	Substandard
★☆☆☆☆	Oh dear

Class HD Utils #29

■ **Type:** Utilities collection.

■ **Available from:** Classic Amiga PD. 11 Deansgate, Radcliffe, Manchester. M26-2SH

Tel: 0161 723 1638

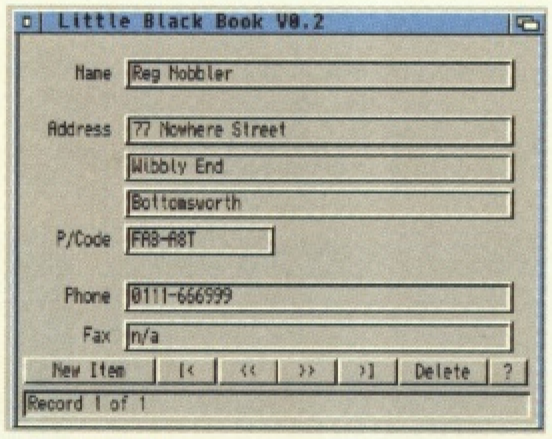
■ **Price:** £1 plus 75p P&P per order.

There are 12 programs to look at on this 29th release of this popular utility series. Doubler, was the first program I looked at; it is a disk copier vaguely resembling the commercial program X-Copy, but with very limited features.

WHDLoad is very interesting, it's a system designed to enable hard disk installation of virtually any software, protected or not.
A warning here, WHDLoad is not for beginners, you'll need to know your way around your Amiga and a bit of assembler knowledge is needed to get the maximum benefit. Little Blackbook is just a very, very simple address database with virtually no features. It is excellent if you like to keep things simple and I think it's great.

DMS2HD is a useful program that can unpack DMS archives direct to hard drive in a few seconds. RaxChange is a neat currency converter. You will need to keep the current exchange rates up to date in the data file though.

To finish off with we have a flurry of tiny, but interesting odds and ends including: Talktime, which uses the Narrator device to become a speaking clock, I can't think of many uses for it at the moment, but there



Hard Disk Utilities

must be some. SpeedyChip is a patch, including assembly source code that speeds up 68060 processors and Screen2Iff is yet another screen grabber.

Mpgplayer is a player for Delitracker that decodes mpg audio, Newpassword is a password tool for hard drive users and LZX Keyfile is the key to unlock unregistered versions LZX to the full version, appreciation due to the author, Jonathan Forbes, for that act of generosity to the Amiga community. Oh and last but not least a couple of neat Workbench backdrops. What more do you want for £1? ★★★★☆



Hard Disk Utilities

Racing Calculator

■ **Type:** Gambling utility.

■ **Available from:** Vye-Parminter. 85 Mackintosh Place, Roath Park, Cardiff. CF2-4RL.

■ **Price:** Unknown

A nice idea gone a bit wrong is how Racing Calculator comes across to me. The general idea is that the software will work out your exact winnings for almost any given bet.

OK then, first of all let's take a very simple bet, a Patent. This is three selections covered by 3 singles, 3 doubles and a treble. Let us assume all three horses/dogs whatever have won and they all won at evens. To work out your winnings first click on the 'Patent' button from the main menu. You must now enter the three winners prices.

To do that you have to convert the prices into a spatial format using a chart supplied



Racing Calculator



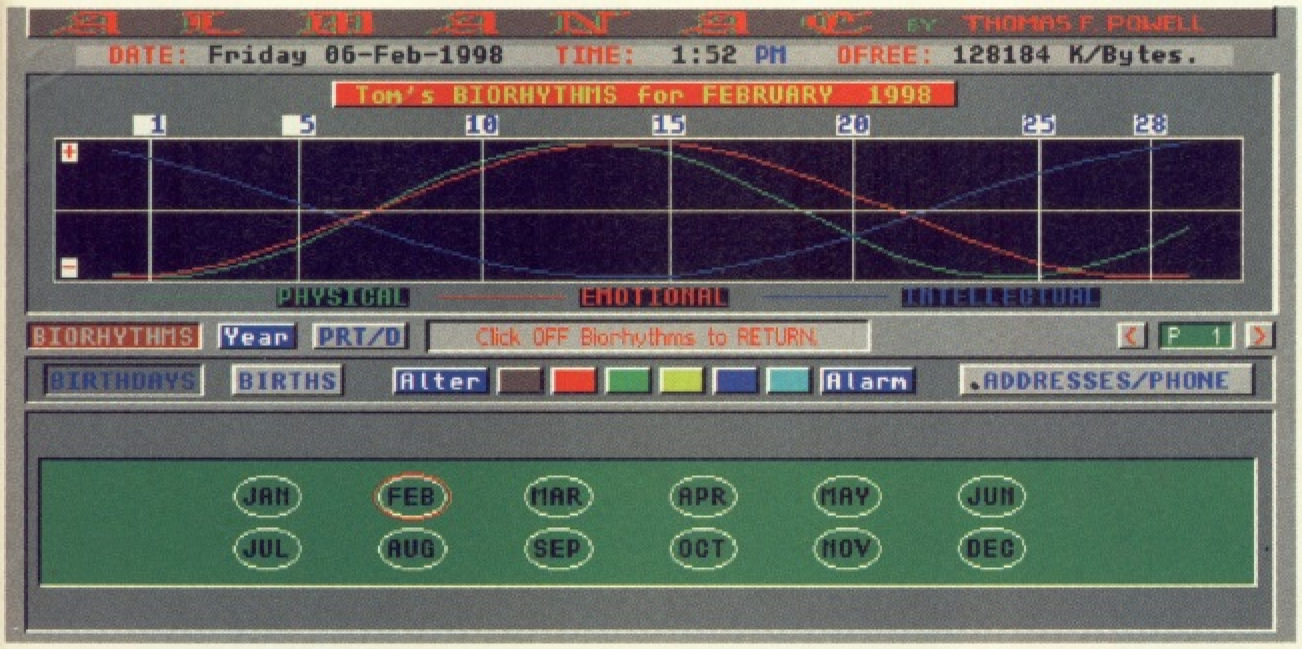
Racing Calculator

with the program. I don't know why this is necessary, but it is a bit of a pain. Evens converts to '2.00' according to the chart.

You type in the 3 sets of numbers and get the total winnings (£26). If you only had two winners you type a zero instead of the price. All the bets are geared to a £1 stake, which is reasonable but what about if you had an £8 stake?

Or worse £3.75, you may as well work it out yourself. There are 15 types of bet covered and the calculations that I tested the program with worked out fine. As well as the above mentioned niggles the program has a very clunky and ugly front-end, you often have to click a button 5 or 6 times to find the correct bit to click on which is well dodgy programming.

The author would like £5 which includes postage and packaging for the full version, which is in uncompiled Amos, so if you know your Amos you could put most of the programs faults right in an afternoon, after



Almanac F3

unlocking the procedures.

More work on user-friendliness and presentation is needed. ★★★★★

Almanac F3

■ Type: Diary

■ Available from: Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester. M26-2SH
Tel: 0161 723 1638

■ Price: £1 plus 75p P&P per order.

This splendid looking utility has a lot of features, some useful, some just for fun.

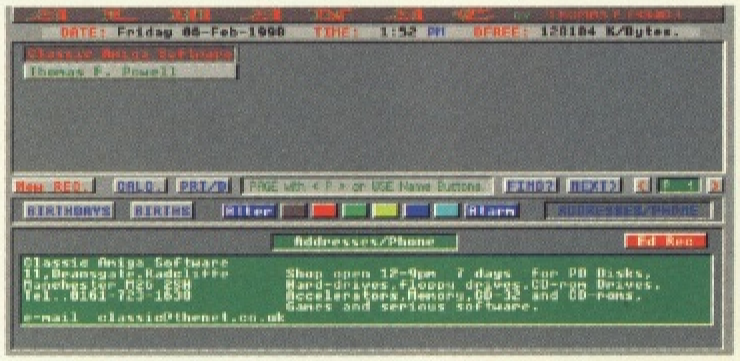
Almanac's main display consists of the current calendar in the top third of screen. Here you can view any year that you desire and you can also place notes on any date you wish.

There is an alarm system so that you are alerted when someones birthday is due. Clicking on the 'Birthday' button will present you with a list of all the peoples birthdays you have entered into the database. From the birthday screen you can also access a Biorhythm chart for any person that is entered on the list.

No program of this kind would be complete without an address book and Almanacs is versatile and easy to use. The program also supports a colour code scheme for your diary entries. These codes, say red for anniversaries, can be altered to your requirements by clicking the 'Alter' button. It doesn't end there either.

Other features include a world time chart, a calculator, a temperature/length/volume converter, a day counter, which gives you the number of days between any two given dates, a 'Find Easter' calculator and even five sets of music mods to choose from for background music.

Almanac F3 is very easy to use, looks good and works well. Some of the features are a bit naff but there is always someone that will find a use for them I suppose? Overall though a great little program that could be useful if you don't own a simple diary. ★★★★★



Almanac F3



Almanac F3

Utility of the Month...

Virus Checker II V1.0

Type: Virus killer

Available from: Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester. M26-2SH

Tel: 0161 723 1638

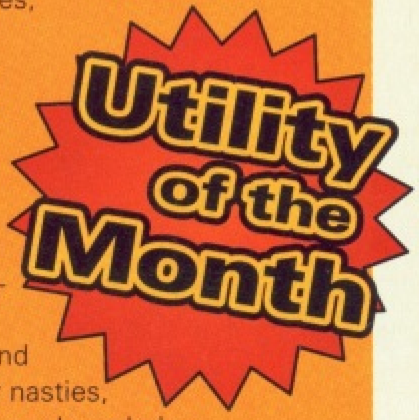
Price: £1 plus 75p P&P per order.

Only the foolhardy or the ignorant do not have some sort of virus protection on their system. Although the Amiga sees a lot less new viruses about these days, the old one's are still out there doing the rounds – luckily most of the older ones are easily spotted and removed using software like Virus Checker II.

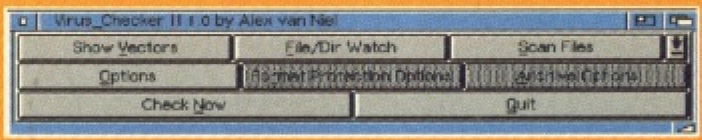
The great thing about VCII is that once installed you never have to even think about it until a requester pops up warning you of a suspect bootblock or a virus in memory or what have you. VCII sits hidden in the background of your Workbench and quietly checks any new disks you insert, any files you run and any corruption of vital parts of memory. If you do want to check your hard drive and every file on it you can do that too.

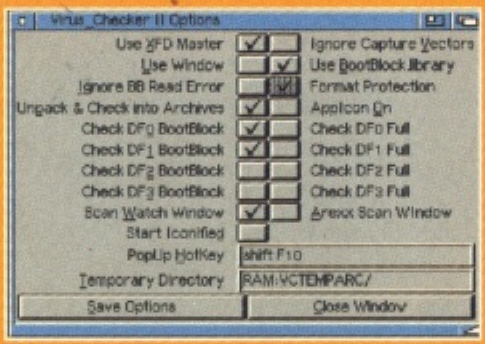
Using VCII you rest safe in the knowledge that nothing bar a brand new strain of virus is going to infect your system. Buying the full registered version not only supports the author and helps ensure more updates, it will also unlock the archive feature. This means any LHA/LZX etc files will be automatically unpacked and checked for nasties, all without your knowledge.

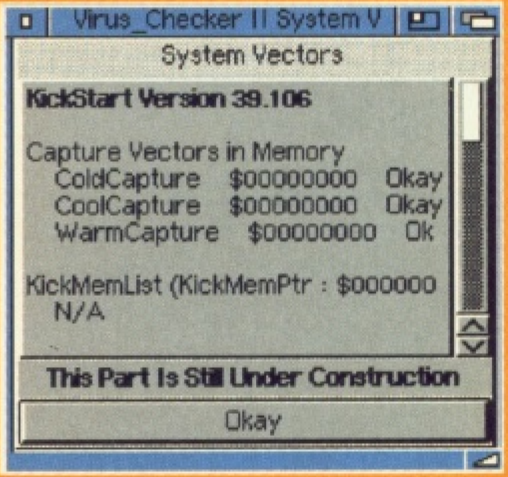
Essential kit and definitely one of the best of its kind. ★★★★★











Art Gallery

Are you a Digital Dali? Computer Carravagio? Send your pics to:
Art Gallery, CU Amiga, 37-39 Mill Harbour, Isle of Dogs, London E14 9TZ.

See your work in print... and win a print, too!

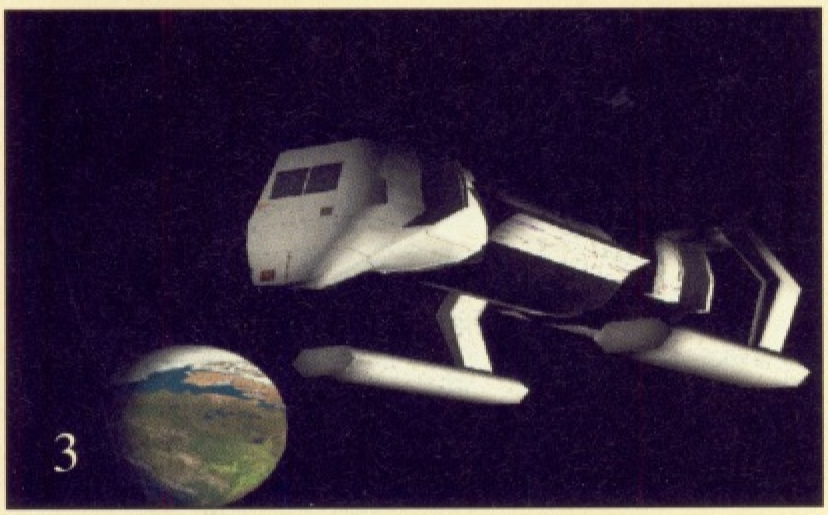
Each month we will declare one picture in the Gallery to be picture of the month – and if it is yours, we will send you a print of your work output to an ultra high quality IRIS printer on glossy paper (that's around 25-30 quid from a print shop to you, guv') – you'll never see your work look so good!

If you want to enter a picture into Art Gallery, either email it to artgal@cu-amiga.co.uk or post in on disk to our normal address, marking the envelope Art Gallery. We recommend the use of PNG format as it saves a lot of disk space, but alternatively GIF or IFF are fine. JPeg drops image quality and should be avoided where possible, and should never be used for images with 256 or fewer colours.*

Picture of the Month




2


3


4


5

1. Towed Away by Angus Lee
This render from Scots Imagine Meister Angus Lee was inspired by the Glasgow police, who towed his car away. The picture took a while to produce because Angus was distracted by the purchase of an N64 and a visit to Hong Kong (leading me to try – but utterly fail – to come up with some joke about Angus and a very similarly named Hong Kong film director of some repute).
Angus's use of large primitives to build up his models gives them a cartoony feel and a unique style which while reminiscent of the Plasticine models of Nick Park makes his work instantly recognisable. Keep 'em coming, Angus!

2. Hand Wash Only by Angus Lee
Another picture from the warped mind of Angus Lee. It is clever compositions such as this one that set apart the really talented from the merely competent. Angus has always had an excellent ear for a title – graphics may be a visual medium, but a really well chosen title can certainly put the viewer in a better frame of mind to appreciate the image.

3. Stop Over by Steve Perrett
One of Steve's first attempts at an Imagine 4.0 render. It's rather unusual to see a spaceship render of what looks like some kind of commercial spacecraft rather than a pointy battleship firing lasers all over the place. I'm not keen on the actual design on the spaceship, although it is nicely executed and very well lit.

4. Pitstop by Jon Mills
Jon produced this image with Cinema 4D v3, DPaint 4 AGA and Image FX1.5... it makes me think of Wipeout 2097.

Although the curves and planes of this futuristic racer are nicely original, the thing that makes it stand out is the excellent use of decals. I particularly like the idea of the British Racing Green go-faster stripes, although I am not so convinced they look good on the gun-metal grey background.

5. Goddess by Shaun Lindsay
Shaun used PPaint 6.6 for the core drawing but also Photogenics to produce the 24 bit output that gives this image all those rich colours. The lens flare is a Lightwave addition.

Always nice to see some hand drawn artwork, this spooky image is an intriguing addition to the Art Gallery. The weird black eyes really make this image, it's always eyes we look at first in a face and it can be pretty disconcerting if we don't see what we were expecting..

User Groups

Here's our regular Amiga user group directory with quite a few new additions since last month. Our aim is to put as many like-minded Amiga users in contact with each other as possible, so be sure to send us in details of your group if you have one.

Amiga Christchurch Inc.
Location: Christchurch NewZealand
Contact by: Phone
Contact: Annette Leonardo
Telephone: +64 03 3390232
Details: Meeting times: Second Tuesday of every month 7:30 pm.
Places: Shirley Community centre, Shirley Rd.
Services offered: Monthly newsletter, over 2000 programs on disk or CD-ROM.
Other: Magazines & Video library, SIG groups.
Address: ACI P.O. Box 35-107 Christchurch, New Zealand

Amipack
Location: World Wide–An Amatuer Radio Amiga group
Contact by: Email (DJKus@CarsonJ.clara.net)
Contact: Paul Carson
Telephone: NA
WWW: None yet..
Details:
Meeting times: None.
Places: On the Amatuer Radio Packet network.
Services offered: Radio s/ware and weekly Amipack bulliens on Packet radio.
Other: We offer a large selection of radio related shareware and write a weekly news bulliten on the Amiga scene from around the world.
Address: 10 Belgravia Avenue, Bangor, Co.Down, N.Ireland BT196XA

Waaslandia
Location: Belgium
Contact by: Email (waasland@glo.be)
Contact: Tony Mees
Telephone: + 32 (0) 3 744 13 19
WWW: http://titan.glo.be/~waasland
Details:
Meeting times:12 meetings in month.
Places: We have 6 Amiga clubs in Belgium: Antwerpen; Merksem; Aalst; Mechelen; Turnhout; St-Niklaas
Services offered:
- Amiga-only computer club
- infostand on 15 computer fairs in Belgium – lessons for experts as well as beginners – a free club magazine of about 50 pages
- free soft and hardware advice
- travel to foreign Amiga fairs
- an Amiga CD library
- close contacts with German companies
- own club CD production
- own Amiga club T-shirt design
- an Internet club with our own homepage, IRC channel, mailinglist, Amiga Internet helpdesk and a webmaster who is beta-tester for different well know programs.

Other:
We our organising an Amiga computer fair in Antwerp at the end of April with lots of Amiga companies and developers! Please check out our homepage for more info!

Address: Lepelstraat 11, 9140 Steendorp Belgium

Wigan & West Lancs Amiga User Group
Location: Wigan/West Lancashire
Contact by: Email (ssamiga@warp.co.uk)
Contact: Simon Brown/Ralph Twiss
Telephone: Simon: 01257 402201 (after 6pm - answerphone other times) or Ralph:01695 623865
WWW: www.warp.co.uk/~ssamiga
Details:
Meeting times: Sundays at 1pm
Places:St Thomas the Martyr School Hall, Highgate Road, Up Holland, Lancs
Services offered:
Free PD library,free net access, free help, free printing, cheap software, cheap hardware, free flatbed scanning Other: 60+ members (about 25-30 turn up each week) Admission is £2.00. Refreshements are available. Great modern facilities and car parking.
Address:
79 Woodnook Road, Appley Bridge
Wigan, WN6 9JR &
32 Higher Lane, Up Holland, West Lancs

Alpha Software
Location: Newcastle, UK
Contact by: Email (gazy@globalnet.co.uk)
Contact: Gareth Murfin
Telephone: 01670 715454
WWW: http://www.users.globalnet.co.uk/~gazy/
Details:
Meeting times: 8-9pm.
Places: IRC #AmIRC GalaxyNet
Services offered:
Advice, Online games, Free Alpga Software.
Other: Support for Gloom 3 and DWaRFx
Address: Alpha Software. Gareth Murfin.113, Cateran Way, Collingwood Grange. Cramlington Northumberland. NE23 6EZ. UK.

Convergence International
Location: International
Email at: enquiries@convergence.eu.org
Contact: Ben Clarke
Telephone: 0956 985959
WWW: www.convergence.eu.org
Details:
Meeting times: 8pm (GMT), Wednesdays and Sundays Places: #converge (IRCnet), mainly admin only but members are welcome
Services offered: Comprehensive news service on our web site; fortnightly newsletter; technical support for members; coming soon: a new non-wintel hierarchical search engine
Other: Convergence International is the premier non-Wintel user group, open to users of all non-Wintel based systems. Membership is free and is open to anyone who wishes to actively support the non-Wintel cause.
Address: 49, St. Gilberts Road, Bourne Lincs, United Kingdom

Amiga Club Genk (ACG)
Method: Email
Location: Genk, Belgium
Contact by: Email (amiga.club.genk@skynet.be)
Contact: Bart Vanhaeren
WWW: http://users.skynet.be/amiga/acg
Details:
Meeting times: every 1st sunday o/t month
Places: Cultural Centre of Genk, meetingroom 1
Services offered: Support for hard- & software related problems, workshops, PD-collection, monthly newsletter, magazine subscriptions
Address: Weg Naar Zwartberg 248
B-3660 OPGLABBEEK, BELGIUM

Relax ITC
Location: Poland
Contact by: Email (shandor1@polbox.com)
Contact: Shandor
Telephone: ++48-91-357184
WWW: -
Details:
Meeting times: all week
Places: no specified
Services offered:
Other:
We're Polish crazy demo group.
We make a IXML disk magazine
and we love Amiga as YOU !
Address: ul.Maciejewicza 1/27
71004 Szczecin 10, Poland

National Capital Amiga User Group NCAUG
Location: Washington D.C. USA

Contact by: Phone (send us your phone number!)
Contact: Matt Bell
Telephone: 10pm - 1am US Eastern STD Time
Details:
Meeting times:12:00 noom EST
Places: Dolly Madison Library
Services offered: Demos support and help
Other: Special Interest Group Include the following: Internet; Music; Programming; Video; New Users; Hardware; Public Domain; and the must important one PIZZA SIG.
Address: Matt Bell, 211 Finchingfield Court Sterling, VA 20165-6404 USA

Amiga World Special Interest Group
Location: Athens, Greece
Contact by: Post
Contact: Menis Malaxianakis
Telephone: 301 - 9026910/9012019
WWW: http://www.compulink.gr/amiga
Details:
Meeting times:17:00 at Saturdays
Places:Athens
Services offered: Help,translations, contacts etc.
Other: Forming developer groups for new Amiga programs
Address: Menis Malaxianakis, Giannitson 11str.
PostCode: 17234, Dafni Athens, Greece

Amiga Forever!
Location: Hampshire
Contact by: Post
Contact: Stuart Keith
Telephone: 01703 861842 all day
Details:
Services offered: Aminet
Other: Disk mag software xchange
Address:101 Ewell Way, Totton, Southampton Hants S040 3PQ

Mutual Amiga Computer Enthusiast (MACE)
Location: Beresfield, Newcastle, Australia
Contact by: Email (ken@rich.com.au)
Contact: Ken Woodward
Telephone: after working hours
Meeting times: 7PM 1st & 3rd Wednesdays.
Places: Beresfield Bowling Club.
Services offered: help, training, graphics.
Other: Fun family atmosphere. All welcome.
Address: 59 Carnley Avenue, New Lambton Newcastle, New South Wales Australia

Kickstart - The Surrey Amiga User Group
Location: Surrey
Contact by: Phone
Contact: Rob Gilbert
Telephone: 01932 875336
WWW: www.arrakis.u-net.com
Details: Meeting times: Monthly
Places: Varies
Services offered: tower advice, Shapeshifter sessions, DTP, music, Net etc. Other: Newly formed group welcomes any Amiga users in the area for chat, advice etc
Address: 10 BRox Road, Ottershaw, Surrey, KT16 OHL

Canberra Amiga Users Society Inc (CAUSe)
Location: Canberra, ACT, Australia
Contact by: Phone
Contact: Alex Cameron (Secretary)
Telephone: (02) 6286 2966
WWW: http://www.spirit.net.au/~jamesm/CAUS/
Meeting times: 2nd Thursday of the Month from 8pm. Places: Woden Town Centre Library (Entry - The Elm Cafe). Services offered: PD Library, Aminet CD's, Bulletin Board System, SIG's, Bi-Monthly Newsletter, Raffles etc. Other: The User group also promotes the Amiga at local PC Computer Fairs :)
Address: Canberra Amiga Users Society PO Box 596, Canberra ACT, 2601, Australia

XCAD User
Location: N Ireland
Contact by: Post
Contact: Tony McGartland
Telephone: 01662 250320 (after 6pm)
Details:
Meeting times/Places: To be arranged
Services offered:Hoping to produce newsletters for members
Address:
11 Lammy Drive, Omagh, Co Tyrone. BT78 5JB

ICPUG SE Computer Club
Location: Biggin Hill
Contact by: Post, Tel, Email
Contact: Len Beard
Telephone: 01689 813 616
Details: Meeting times: Thursdays 8-10pm
Places: Shirley Community centre, Shirley Rd.
Services offered:Amiga + PC advice, talks + demo's by experts, buy +exchange, free PD
Address: .
56 Rookesly Rd, Orpington, Kent. BR5 4HJ

Colchester Amiga Forum
Location: Colchester, Essex
Contact by: Tel
Contact: Patrick Mead
Telephone: 01206 212 864 (Fridays only)
Details:
Meeting times: New Group, to be decided
Places: Shirley Community centre, Shirley Rd.
Services offered:
Address:9 Windmill Ct, Copford, Colchester, Essex. CO6 1LH email: pjmead@Hotmail

Luton Amiga Users Group
Location: Luton, Beds
Contact by: Tel
Contact: Dave Noble
Telephone: 01582 481 952
Details:
Meeting times: Monthly, contact for details
Places: Shirley Community centre, Shirley Rd.
Services offered: Bi-monthly newsletter/disk. PD library

Deal Amiga Club
Location: Kent
Contact: John Worthington
Telephone: 01304 367 992
Meeting times: 7PM Fridays.
Places: St John Ambulance Hall, Mill Hill, Deal, Kent. Services offered:
Other:
Address: 100 Trinity Place, Deal, Kent

User Groups, CU Amiga, 37-39 Milharbour, Isle of Dogs, London, E14 9TZ.

Alternatively, faxit to 0171 972 6755, or use the online version of the form which can be accessed from our website at www.cu.amiga.co.uk This service is completely free of charge.

Genral Location: ______________________

Tel: ______________________

Postal Address: ______________________

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Details: (e.g. meeting times and places, services offered etc.)

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Group name: ______________________

Email: ______________________

Web site: ______________________

Contact name: ______________________

Preferred contact method.(please tick)

❒ **Post** ❒ **Email** ❒ **Phone**

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68060/50 & FPU	£289.99	£304.99	£314.99	£329.99	£364.99
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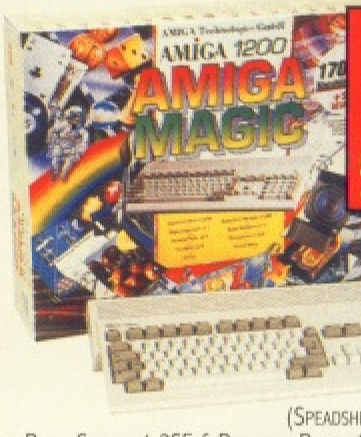
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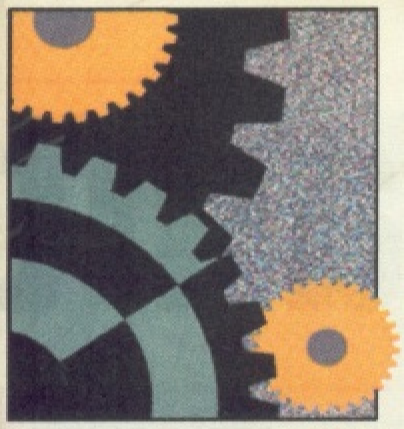
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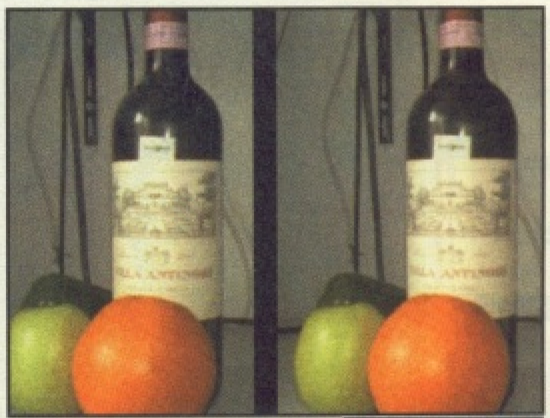
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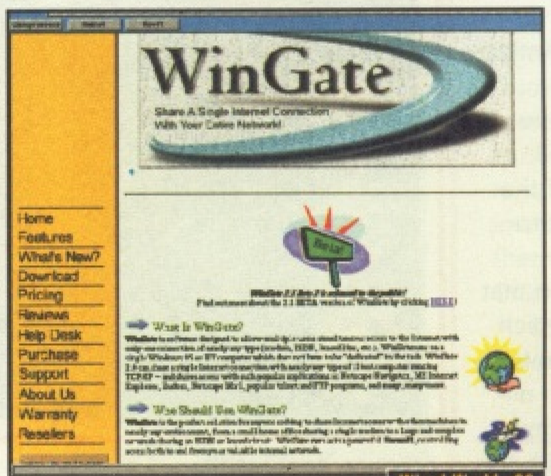
Amiga Workshop



All the usual tutorials are here, plus in-depth Internet analysis, Q & A, Points of View, Techno Tragedies...



Personal Paint 6.6 p76



Wired World p86



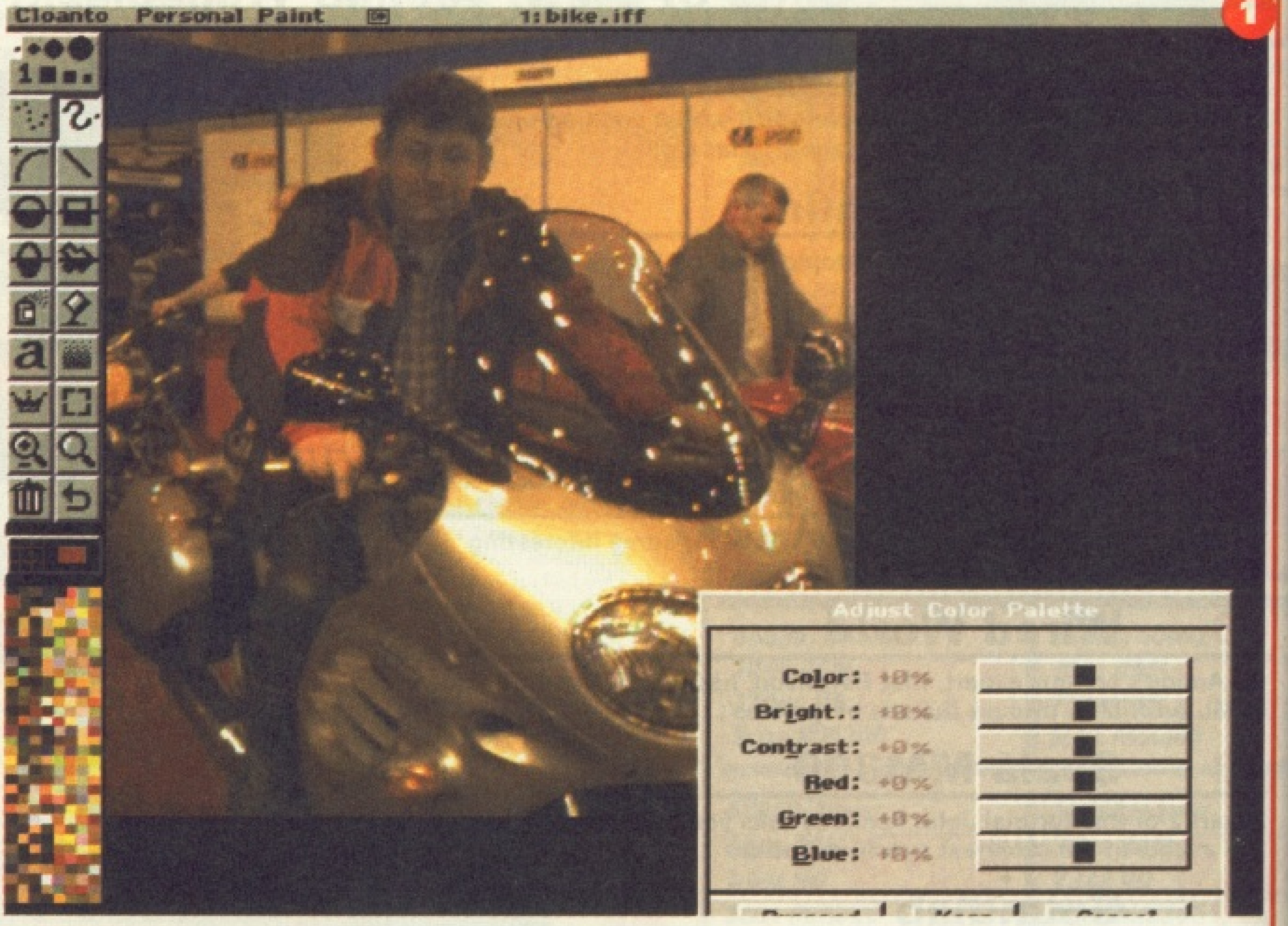
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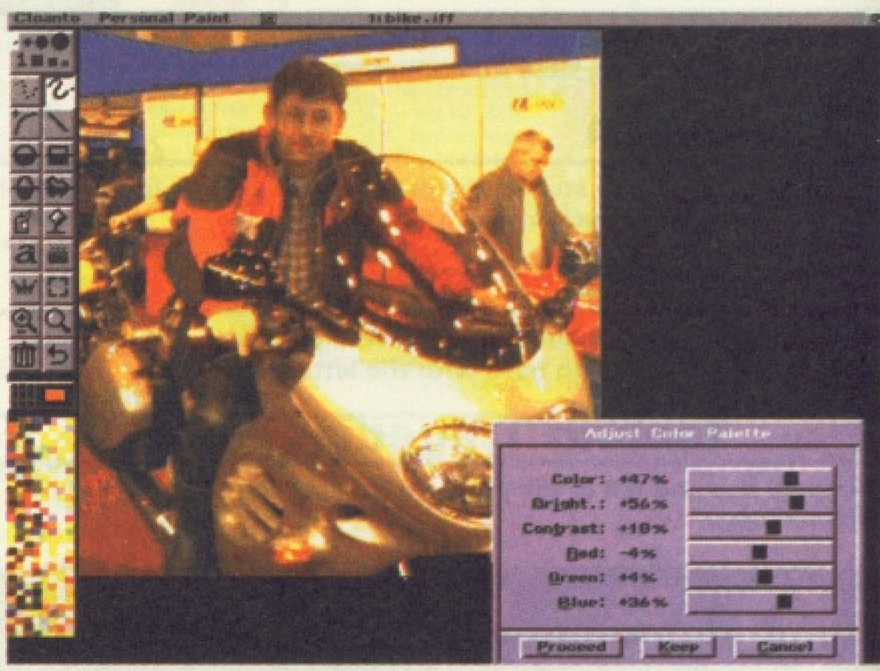
Regulars

PART 3

Personal Paint

Discover the joys of palette control and create your own low-memory Workbench back-drops and collages without getting into a mess.





▲ Before and after: a digital camera image, rendered in 256 colours, is tweaked with Personal Paint to increase the contrast and improve the blue component.

Until we all have Amigas fitted with 24-bit graphics cards, the colour palette will remain as one of the key elements of any graphics program. The palette is extremely important for the simple reason that it affects every single image which the Amiga displays. As you know, the Amiga can switch between different graphics modes very simply. However, all these modes – with the exception of the HAM and HAM8 modes – have a fixed number of colours. For example, a display mode with 16 colours can only display a picture using 16 different shades.

We can select these colours for a huge range (currently over 16 million possibilities) but the fact remains that only 16 can appear on the screen at any one time. 16 colours isn't a lot, and so the Amiga chipset has been improved over the years to the point when the AGA release (present in the A1200, CD32 and A4000) can display up to 256 colours at once.

However, when you remember that high quality images (from a scanner or a JPEG file, say) store colours in 24 bit format – over 16 million again – you soon realise that something has to give. When a 24-bit (or True Colour) image is displayed on a 256 colour screenmode, there are compromises.

Picking the best 256 colours to display a True Colour picture isn't easy. There are lots of ways of doing it, and the techniques which produce best results are mathematical nightmares.

Thankfully, this is one trick which Personal Paint will happily perform for you. Personal Paint can solve other palette problems too: mixing palettes from several images, recolouring brushes and so on. Personal Paint is also good at dithering: not failing to make up its mind, but creating new virtual colours by taking advantage of the way in which the human eye works.

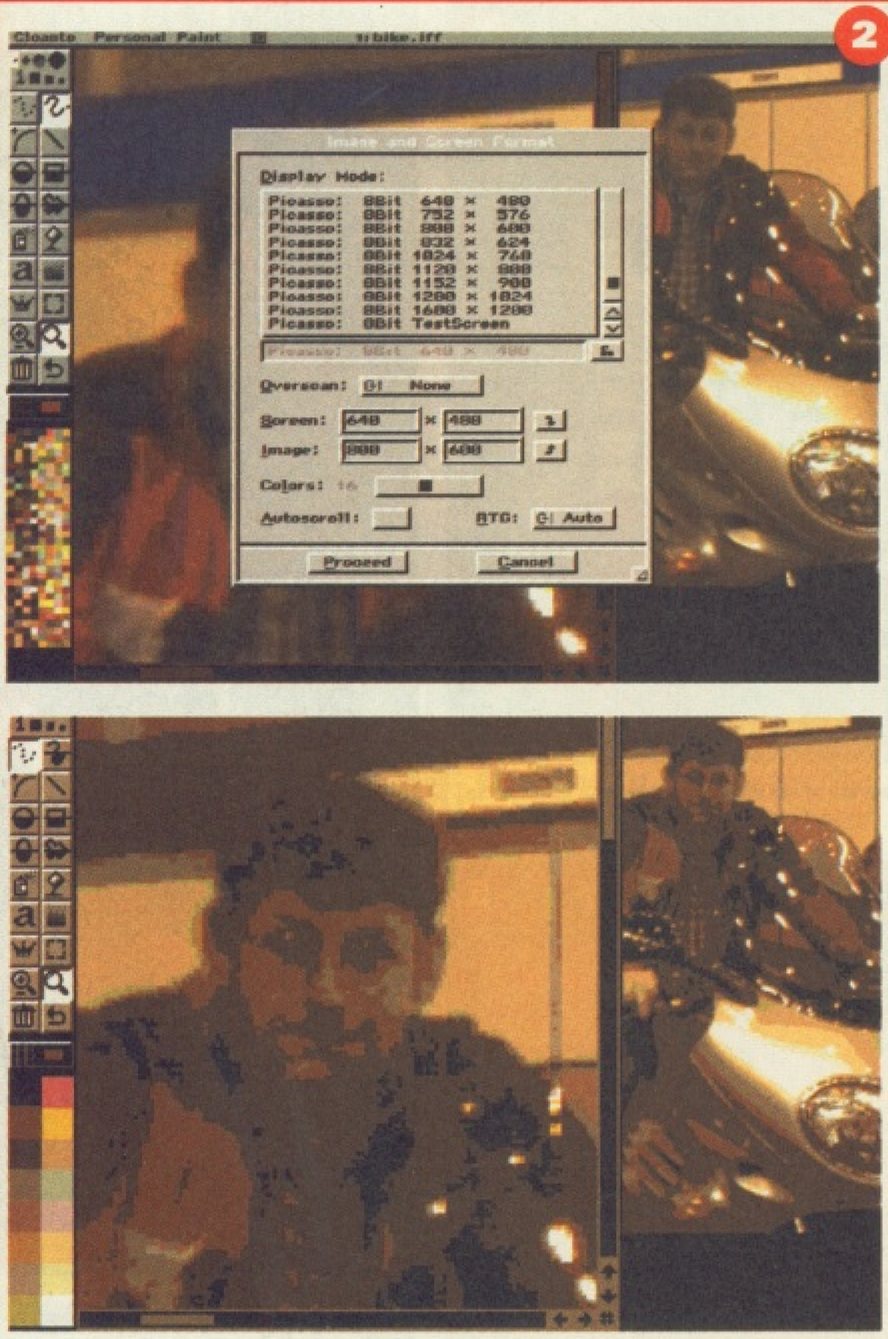
This month let's have a look at some of these colour processes, and hopefully you will discover how Personal Paint is an indispensable tool for dealing with any images which contain any degree of colour at all.

Colour adjustments

One of the simplest, and yet most effective, alterations you can make to an image is to adjust the brightness, contrast and relative strengths of the red, green and blue components. The ability to fine-tune details like this can make all the difference to a badly scanned photograph, or a digital camera image taken under poor lighting conditions.

The effect works best when the image is displayed in 256 colours to start with, as this allows more subtlety in the adjustments. As with most image processing, you can't create information where there isn't any – if you warp the settings too far, the final image will look false and lack detail.

Here's an example of how the colours have been adjusted to improve a digital camera shot. By using the Adjust option from the Color/Palette menu, it's possible to fine-tune the image and increase the



▲ Use Image Format from the Project menu to quickly reduce the number of colours used in an image.

contrast. With digital cameras, it seems the blue component is the weak link (this is often due to the image compression systems used, which store the blue component with less detail) and so it pays to experiment with the blue slider. 1

Colour reduction

Reducing the number of different colours in an image is a common problem. For example, let's say you have a True Colour, or 256 colour, image which you want to reduce to 16 shades and so use as a Workbench backdrop.

There are at least two ways of doing this. The first technique is to use the Image Format from the Project menu. This is the requester which is used to select the screenmode which Personal Paint uses. Notice the slider marked "Colors"; decrease this and Personal Paint will drop the excess colours and re-open its window using the new colours. You can also adjust the screenmode resolution at this point, and so crudely shrink the image at the same time. 2

As you can see from the example, hacking down the number of colours in this way can almost totally destroy the image, and we'll see how to improve upon that in a minute.

First of all though, there is another slightly more subtle way of reducing the number of colours. In fact, there is a specific menu option called Less Colors, from the Color menu – sorry about the American spelling by the way, you know what these crazy Italian programmers are like. This option allows you to reduce the colours used in the image down to any number in the range 2 to 256. What it doesn't do is change the screen mode: it simply stops a given number of palette pens from being used, and sets their colours to white.

Why would you to do this? Simple. Let's say you have a scanned photograph, and you want to make some additions of your own. Anything from a subtitle to a sketch of a picture frame. By freeing up some palette pens, you are free to redefine them and use them as you want. If you tried to use the existing colours, you would be unlikely to find the right shade was available. If you changed it, it would corrupt the entire image. 3



▲ With "Less Colors" you can reduce the number of active pens, and free yourself some for your own purposes.

Always remember that when saving an image after using "Less Colors", that the original screenmode is preserved. Use Image Format to adjust the screenmode to something more suitable. There is no harm in saving an image which uses 16 colours as a 256 colour screenmode file – but you are wasting memory, storage space and resources such as Chip Memory when displaying it.

Improving your image

Although useful, the results of displaying an image using less colours than the original always causes a degradation in quality. You can see this clearly in the previous example, as the image becomes grainy and finally breaks down to near ZX-Spectrum quality. As promised, there are several ways to improve upon the results we've obtained so far, namely the colour reduction technique used by Personal Paint, and the introduction of dithering.

There are two colour reduction algorithms used by Personal Paint: Qualitative and Quantitative. The differences between them are subtle, and it's best to experiment to see how they will affect your final image. You can choose between them from the Settings menu under Color Reductions.

Switch between the two settings before altering an image to see if



▲ You'll need to look closely to see the differences between the Qualitative and Quantitative colour reduction modes.

you can spot the difference. 4

By far the greatest improvement in image quality is made by dithering. Dithering does the impossible: it adds more colours to the image.

It does this by placing two different coloured pixels side-by-side, and counting on the fact that the human vision system will average the pixels to get a new colour. This same technique is used in printed media, to produce coloured images from only three or four key colours; and on television screens – try looking very closely to see the dots of red, green and blue.

Personal Paint can dither an image, and so create the impression of more colours. Here's an example. Both of these images have been converted from a True Colour digital camera image to only 256 different colours. The one on the left has been converted in the usual way, and the one on the right by using dithering.

At first glance they probably look extremely similar, but look more closely at the orange. Notice how in the right-hand image there are definite bands of colour, and yet this is not the case in the dithered image. This is the effect which dithering achieves. 5

In this magnified view you can see how the dithering changes pixel colours to give the effect of new shades. Although there are the same number of colours available, the dithered orange looks considerably better – especially when it is viewed at high resolution or from a long distance. 6

Look at how with dithering switched on, even a picture reduced to two colours looks more recognisable. If you have a black and white printer, try using dithering to convert your images before printing them. 7

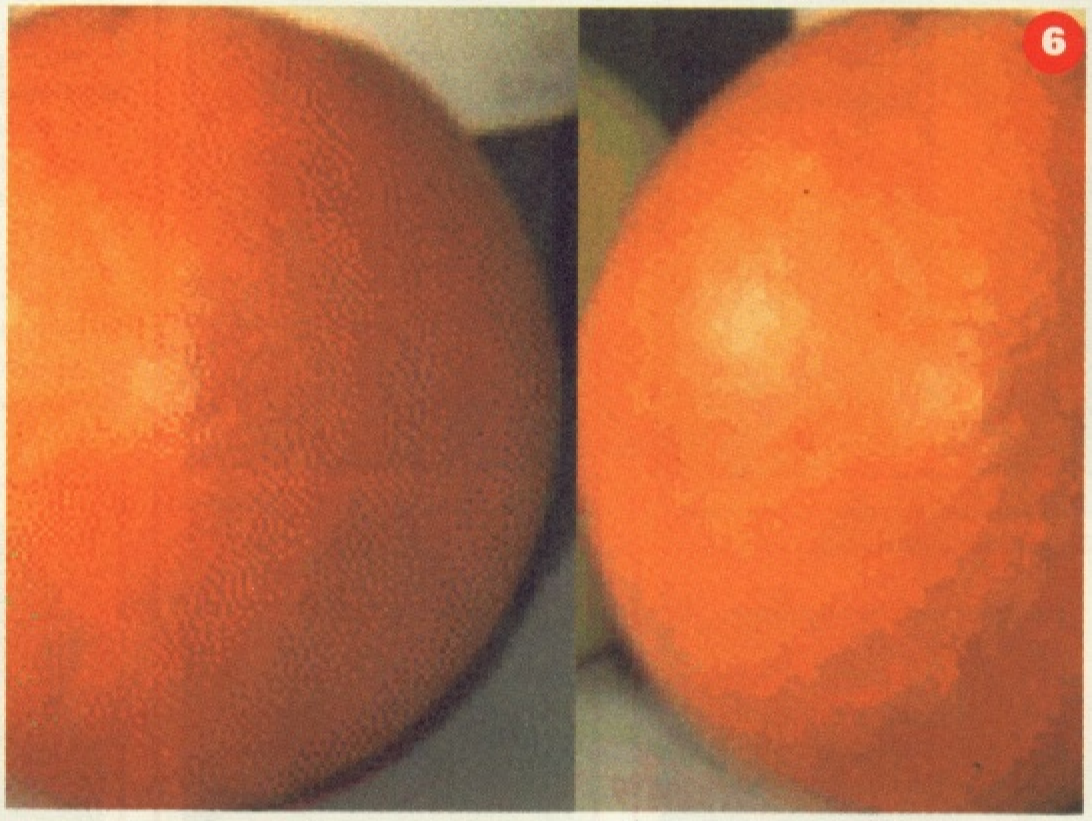
This dithering technique is ideal for converting a colour image into something more manageable for display as a Workbench backdrop. All you have to do is use the Settings menu to switch the dithering from None to Pattern or, preferably, Floyd-Steinberg, and then load in your favourite image.

Select the Best Quality option if you can stand the extra waiting that's involved. 8



5

▲ The image on the left has been converted to 256 colours, and so has the image on the right. However, the left hand image has been dithered. See the difference?



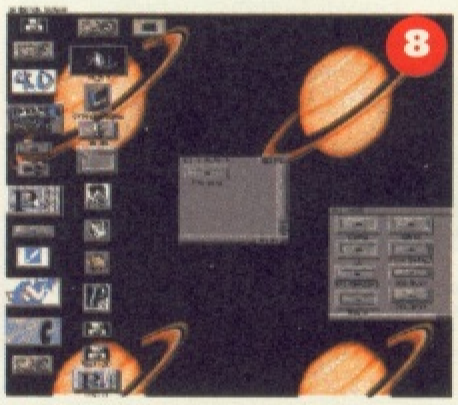
6

▲ Look closely and you'll see the dithering in action.



7

▲ With dithering, even two colour pictures look a lot better.



8

▲ There's no excuse for a dull Workbench: this pattern uses only 16 colours, thanks to dithering.

Multiple palettes

After Personal Paint so carefully created a palette for each image on an individual basis, it seems too much to expect that several images can exist on the same screen at once. Yet this is possible: Personal Paint will remap the second image to make the most of the existing palette. To see this in action, load in a colourful picture in the conventional way.

Now load in a second, perhaps smaller, image as a brush. You'll probably see something like this: the new brush appears as a load of mush, as its colours are currently defined to different values by the first image. 9

To sort it out, all you have to do is select Color/Remap from the Brush menu. Personal Paint will automatically alter the second image to make the most of the existing palette. 10

Personal Paint has many more Palette control features, which we have neither the time nor the space to begin covering here. However, Personal Paint is such an easy program to use, all you have to do is experiment a little to find out some exciting new ways of dealing with your images. Good luck! ■

John Kennedy



9

▲ The second picture appears as a mess, as its colours are all in use by the existing image.



10

▲ A quick remap later, and the image is back to normal.

Amiga C Programming

PART 9

Workbench, icons and more arguments. Plus some compiler differences.

After last month's in-depth look at the "ReadArgs()" function, you'd have thought we'd be finished with arguments. But that's not yet quite the case because we haven't yet considered the effects of running our program from the Workbench.

Unfortunately, the way a program interacts with Workbench is quite different from the way command-line options are supplied, so we're going to look at how we can allow the user to do the same kinds of things from both the CLI and Workbench.

Workbench startup

The Workbench is more concerned with icons than text, and the user supplies file (or drawer) arguments to a program by selecting the appropriate icons at the same time as starting the program.

These icon arguments are passed to the program as a message which it must retrieve at the start of the program. In the (bad) old days, Amiga C compilers didn't necessarily understand this and programs could only be run from the CLI. If you tried running from the Workbench then the Workbench startup message would be ignored and the system would eventually crash (usually on the first "printf()"!).

Nowadays things are a little more sane, and so the program we've been creating is perfectly safe to run from Workbench (assuming you're not using a very old or stupid compiler). However, the special features of a Workbench invocation are not exploited at all. In fact, StormC plays very safe by default, and just handles the Workbench message and quits the program.

So we've now stumbled across one of the first real differences in compilers: the way Workbench programs are started.

There are numerous other differences that programmers have to cope with if they want to write 'portable' code, but this is one that is clearly outside the scope of any ANSI standard for C (it's obviously very particular to Amiga programs). We've so far kept away from any compiler-specific issues, and tried to keep our program as portable (across Amiga C compilers) as possible.

For the first time we're going to support only the Amiga standard (as dictated by SAS/C) and the two modern compilers, StormC and Maxon/HiSOFT C++ (which don't follow the official standard, for some reason). If your compiler isn't compatible with either of these approaches then you'll need to consult its manual to see how to exploit a Workbench startup, and adjust the code accordingly.

In SAS/C, the integration of Workbench and CLI invocation is fairly seamless and the "main()" function is always the starting point of the program, even if it's been run from Workbench.

However, it does slightly abuse the convention of the "argc" and "argv" arguments to "main()", as we'll see, but it's a technique that's been officially sanctioned on the Amiga. StormC, on the other hand, goes against this standard and ignores "main()" completely if the program is started by Workbench. It starts the program at a function called "wbmain()", instead, and this does nothing by default, although your program can redefine it. This convention is shared (unsurprisingly) by Maxon/HiSOFT C++.

The first step is to overcome these compiler differences and separate our real starting code from both "main()" and "wbmain()". In the process, we'll be creating places for any CLI-specific and Workbench-specific code to live (ie; in "main()" and "wbmain()", respectively).

The first example on the disks ("wb0") changes "main.c" to include this scheme, and supplies an icon for the program so it can be run from Workbench. As you can see from the code (shown in Example 1), SAS/C uses an "argc" of zero to "main()" to indicate a Workbench start and this fact is used to redirect the program to "wbmain()".

The "struct WBStartup" argument contains the Workbench message mentioned above. We'll look at it in a little more detail later.

Example 1

```
/* The CLI starting point for StormC, but the general start for SAS/C */
void main(int argc, char** argv)
{
 /* argc should never be zero: SAS/C uses this to indicate WB start */
 if(argc == 0)
  wbmain((struct WBStartup*)argv);
 else
  realmain();
}

/* The WB starting point for StormC */
void wbmain(struct WBStartup* wbmsg)
{
 /* WB-specific startup could go here */
 realmain();
}

/* The start of the program */
static void realmain()
{
 if(createAll())
  handleIDCMP();
 freeAll();
}
```

CLI versus Workbench

A program can be started from the CLI (or Shell) or from Workbench. The former is the normal way most programmers run things, since they're often messing around in a CLI.

Conversely, beginners normally start programs through the Workbench, since this presents a considerably more friendly environment.

However, it's the programmer who must pay for this increased friendliness and cope with the complexities of a Workbench startup, not least because C's heritage owes more to CLIs than GUIs.

Workbench startup

A program has a different environment and different responsibilities when it's run from Workbench rather than a CLI. The main difference is the presence of an initial startup message and the absence of standard input and output (since there's normally no console). Modern compilers use startup code that handles these differences safely, without too much effort by the programmer.

Tool types

An array of strings are stored in a program's icon. Like the default tool, these values can be edited by the user via the "Information" menu item. Tool Type strings are limited only by convention to items of the form "OPTION=value", a format which is supported by the Tool Types functions in the Icon library. Programs are free to use Tool Types how they like: an extreme example of this is NewIcons which actually stores its icon as funny strings in the normal icon's Tool Types!

Workbench arguments

File arguments are usually supplied to a Workbench program by selecting icons, but how are the other configuration options specified? The answer to that should be obvious: you use the program's Tool Types, which are stored in its icon.

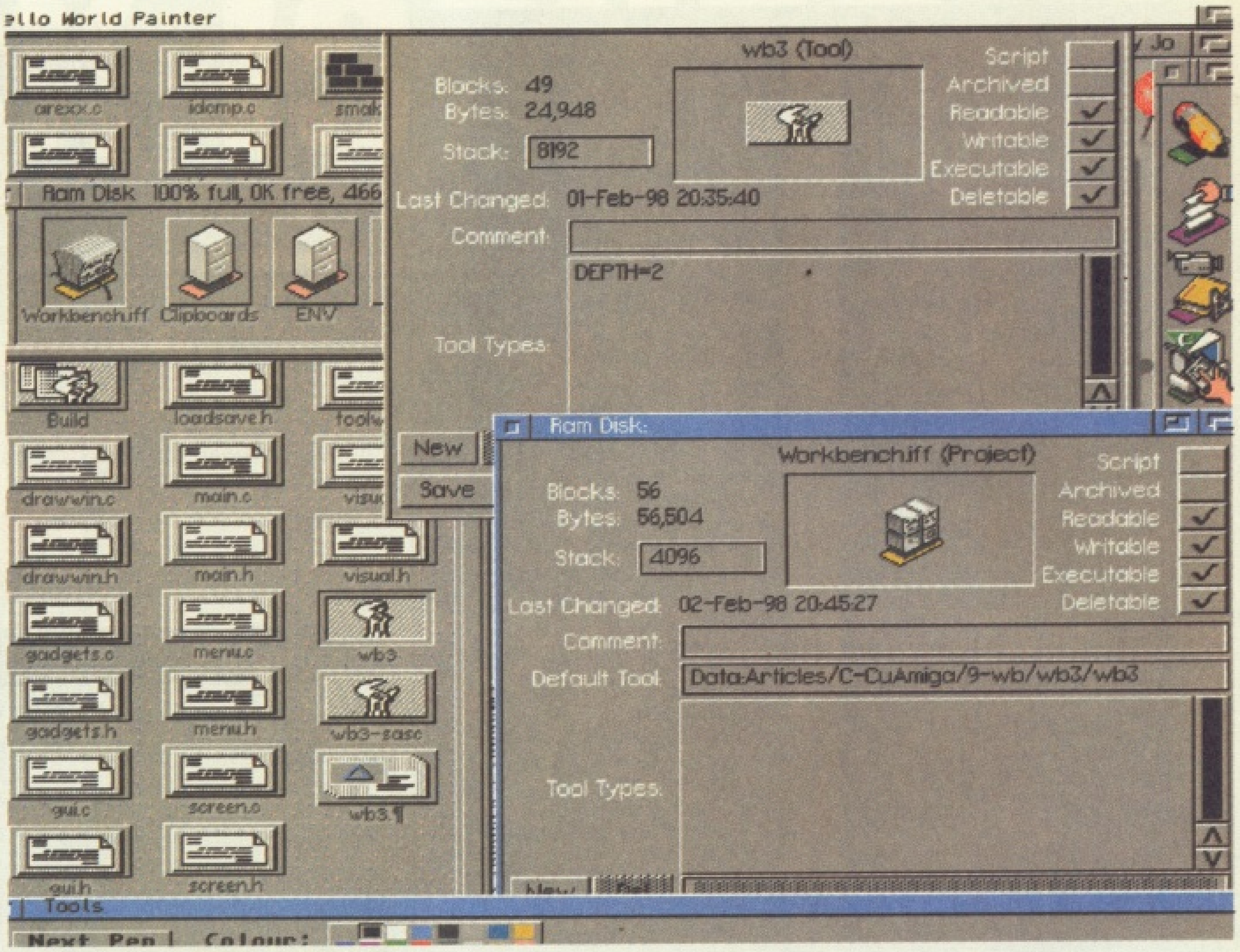
When a program is started from the CLI, the first entry in the "argv" array is the name of the program. In a similar way, when it's started from Workbench the first entry in the "struct WBStartup" message's argument list is a reference to the program. So, to get the Tool Types we use the argument list to find the icon for the program.

The second example ("wb1") shows how to use functions from the Icon library to get hold of a program's Tool Types and extract the options and arguments (the significant changes are to "createAll()"). The same two options as in the "ReadArgs()" version are supported, and we're back to using "atoi()" to turn the "DEPTH" string into a number.

This new Tool Types code is shown in the extract in Example 2, and it's pretty straightforward. It follows a similar structure to the "ReadArgs()" code, especially in the delayed freeing of the icon (stored in "dobj").

One important point to notice is the handling of the argument list from the startup message. Each entry is a pair of a directory lock and filename. To access the file (or its icon) the current directory must be changed to that indicated by the lock (using "CurrentDir()"). The file can then be referred to by name (although the name for directories and disks is a null pointer, as it is only the lock that's required).

After accessing the file, the current directory must be set back to the original directory.



Workbench in HelloPainter! ▲

Default Tool

Every project icon has a default tool associated with it that is run when the icon is double-clicked. The tool is started as if the user had activated it directly, with the project file as the first (real) argument (ie; the second entry in the "sm_ArgList"). An icon's default tool can be changed using the "Information" item on Workbench's "Icons" menu.

Example 2

```
/* WB bit, use Tool Types */
BPTR olddir = CurrentDir(wbmsg->sm_ArgList[0].wa_Lock);
if(dobj = GetDiskObject(wbmsg->sm_ArgList[0].wa_Name))
{
 UBYTE** tt = (UBYTE**)dobj->do_ToolTypes;
 char* depthptr = FindToolType(tt, TT_DEPTH);
 portname = FindToolType(tt, TT_PORTNAME);
 /* Use the default if a Tool Type was not specified */
 if(portname == NULL)
  portname = DEFAULT_PORTNAME;
 if(depthptr)
  depth = atoi(depthptr);
 else
  depth = DEFAULT_DEPTH;
}
if(olddir)
 CurrentDir(olddir);
```

Default tool

One remaining issue is the use of icons. What can our program do with the icons that are supplied with it when it starts? The answer highlights a missing feature: we can't yet specify the initial picture file to be loaded.

To be consistent we need to extend both the CLI and Workbench code. For the former, this involves adding to the "ReadArgs()" template and allowing an optional filename to be specified. For the latter, we need to make use of the supplied argument list again. Since it's not sensible to load multiple files, we'll ignore all but the first real icon argument (ie; "wbmsg->sm_ArgList[1]").

The third example, "wb2", adds the appropriate code to "main.c" and fiddles with the "load()" function (in "loadsave.c") to separate out a "loadfile()" function. These changes enable our program to be specified as the default tool on project icons (but only for IFF ILBM files!). Double-clicking on such icons will launch our program and make the picture its initial image, all in one go.

Saving icons

The above enhancements suggest another feature concerned with Workbench: when we save a file we could save an icon with it, and have that icon's default tool set properly. The first part of this is pretty simple, needing just a default project icon and way of saving icons.

The last part is more challenging:

Example 3

```
/* A place to store our program name for the default tool */
static char progname[MAXFILENAME];
char* progName()
{
 return progname;
}
static void setProgName(BPTR dir, char* file)
{
 *progname = '\0';
 NameFromLock(dir, progname, MAXFILENAME);
 AddPart(progname, file, MAXFILENAME);
}
/* The CLI starting point for StormC, but the general start for SAS/C */
void main(int argc, char** argv)
{
 /* argc should never be zero: SAS/C uses this to indicate WB start */
 if(argc == 0)
  wbmain((struct WBStartup*)argv);
 else
 {
  BPTR dir = Lock("PROGDIR:", ACCESS_READ);
  setProgName(dir, argv[0]);
  if(dir)
   UnLock(dir);
  realmain(NULL);
 }
}
/* The WB starting point for StormC */
void wbmain(struct WBStartup* wbmsg)
{
 /* WB-specific startup could go here */
      setProgName(wbmsg->sm_ArgList[0].wa_Lock,          wbmsg-
>sm_ArgList[0].wa_Name);
 realmain(wbmsg);
}
```

we need to discover the full path of our program. For a Workbench startup, the relevant information is held in the first item in the startup message argument list.

For the CLI, we can make use of the "PROGDIR:" assignment and the filename typed to invoke the program (in "argv[0]"), and if we use the DOS library's "AddPart()" function we can cope with the user having specified a complete path (like "disk:dir/prog") or a partial path (like "dir/prog").

The final example, "wb3", adds this functionality to "main.c" (see Example 3) and updates the "save()" function in "loadsave.c" (see the extract in Example 4).

User friendliness

There are a number of features of our program that are not particularly friendly.

For example, our picture loader does not ask the user for confirmation before destroying the existing picture. And the new icon saver we've just added writes out an icon without testing whether one exists already.

See if you can find any more of these 'problems' and have go at fixing them. You might like to try out Intuition's "EasyRequest()" function. I'll be seeing you next month for another fun-packed installment! ■

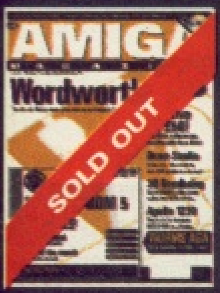
Jason Hulance

Example 4

```
/* Write an icon for the file */
struct DiskObject* dobj = GetDefDiskObject(WBPROJECT);
if(dobj)
{
 /* Temporarily change the default tool */
 char* dtool = dobj->do_DefaultTool;
 dobj->do_DefaultTool = progName();
 /* Write out our icon */
 PutDiskObject(filename, dobj);
 /* Reinstate the default tool */
 dobj->do_DefaultTool = dtool;
 FreeDiskObject(dobj);
}
```

Back Issues

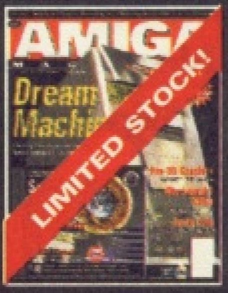
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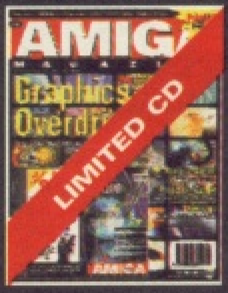
DECEMBER 1996
Disks: Wordworth 3.1 SE, Worms demo. CD-ROM or floppy edition
Features: CD-ROM drive for £50! Amiga and PC games on CD-ROM
Inside: Draw Studio, Apollo 1230, Storm C, Siamese RTG system, Tiny Troops



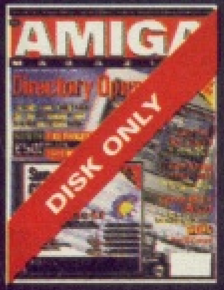
JANUARY 1997
Disks: CD-ROM or floppy edition, Imagine 4.0, Underwater Capers, plus over 100Mb of Imagine extras on CD
Features: Get a job in graphics, plus Imagine 4.0
Inside: Art Effect, PPaint 7, SWOS 96-97, Fighting Spirit, Chaos Engine 2 ...



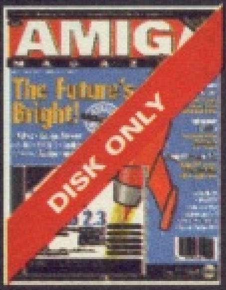
FEBRUARY 1997
Disks: Design Works, Minskies Furballs plus Worms – the Director's Cut extras and Imagine extras on the CD.
Features: The new A/Box
Inside: Wordworth 6 Office, Turbo Calc, Minskies Furballs, Bograts reviewed.



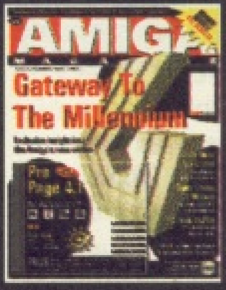
MARCH 1997
Disks: OctaMED SoundStudio (full program) Chaos Engine 2, Chaos Engine 2 AGA demo
Features: Turn your Amiga into a pro studio. Printers: problems solved.
Inside: Quickcam, Cybervision 3D, SMD 100, JetPilot reviewed



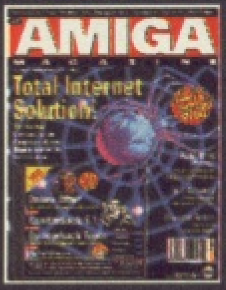
APRIL 1997
Disks: Directory Opus 5.11 (full program). Tiny Troops demo
Features: Build your own Tower Amiga Part 1. The 50 best Amiga Games
Inside: Massive Cinema 4D 3.0 Review, new DTP series, ProGrab Sampler, Teletext Decoder



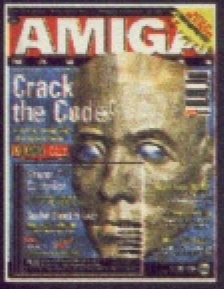
MAY 1997
Disks: Image Studio (full program) Kargon RPG, exclusive clipart on CD
Features: The Future's Bright: Gateway buys Amiga! Tower Amiga Part 2.
Inside: PageStream 3.2, Big Red Adventure, LightWave 5, Epson Stylus 600...



JUNE 1997
Disks: Pro Page 4.1 (full program) MPEGA 2.4, Sysinspector, The Sun game & more!
Features: CD-R for Amiga – cut your own CDs for a few hundred pounds plus Tower Amiga Part 3: Zorro.
Inside: Turbo Print 5, Net Connect, Cybervision...



JULY 1997
Disks: Free Net software, Quarterback 6.1 inc QB tools, Big Red Adventure
Features: Total Internet Solution, the history of the Amiga & a look at Amiga artist, Eric Schwartz.
Inside: Final Writer '97, Siamese RTG 2.0, Burn It...



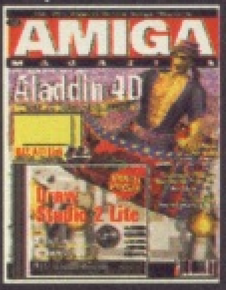
AUGUST 1997
Disks: Dogfight, Turbo Print 5 Lite, Storm C Compiler
Features: Power PC is coming, Crack the Code, plus Power Gaming
Inside: Cinema 4D, Voyager NG 2.90, IBrowse 1.12 & Tower add-ons...



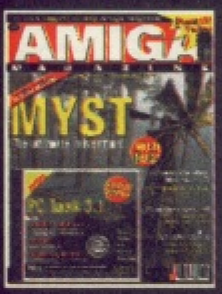
SEPTEMBER 1997
Disks: Sixth Sense Investigations, Vista Pro, MakePath, GeoMorph
Features: New Faces of Amiga Gaming, Amiga: The Next Generation, DIY Sound Card
Inside: Art Affect 2, Art Studio 2.5, Micronik genlocks, Flying High



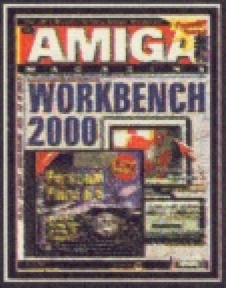
OCTOBER 1997
Disks: TFX, TB 303 Emulator, Virus Z, Video Easel, Visual Prefs
Features: TFX: Quickstart Guide/Techniques & Tips etc., Suzanne: The Portable Amiga
Inside: Fusion Mac Emulator, Civilization, Mk II EZ Tower, Storm C



NOVEMBER 1997
Disks: Draw Studio 2 Lite, AIR Link Software
Features: D.I.Y. AIR Link, Aladdin 4D V5.0, Hydra A1200 Ethernet, Sensible Golf
Inside: Epson Stylus Photo, OxyPatcher, More TFX Tips, Visual IFX, Envoy 2.0,



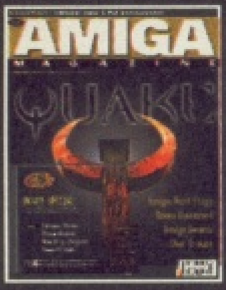
NOVEMBER 1997
Disks: Draw Studio 2 Lite, AIR Link Software
Features: D.I.Y. AIR Link, Aladdin 4D V5.0, Hydra A1200 Ethernet, Sensible Golf
Inside: Epson Stylus Photo, OxyPatcher, More TFX Tips, Visual IFX, Envoy 2.0,



JANUARY 1998
Disks: PPaint 6.6, Trapped 3 Demo, Sound Samples. CD Demos; Sound Probe, Foundation
Features: 1997 Review, Workbench 2000, Remixing with the Pros
Inside: Cyberstorm PPc, Picture Manager Pro, Appollo 630, Uropa 2



FEBRUARY 1998
Disks: SCALA MM300, Sword Demo, 600 Mb of Tools, Mods, Graphics
Features: Amiga Forever Emulator, The Big Switch (PowerPC), CDDA Mixer
Inside: Apple II Emulator, Distant Suns CD, Power Tower, Input Devices Round-Up



MARCH 1998
Disks: Doom, NetPBM, Cartoon Studio, AmIRC, VirusChecker_III
Features: Amiga: Next Generation, Stars of '97, Quake
Inside: TurboCalc, HiSoft C++, WebFTP, Pagestream 3.3, Ultimate Super Skidmarks,

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Surf's Up!

This month sees lots of goings on in the browser business. New releases, new capabilities and news from an unexpected quarter.

NetGod speaks

With the recent announcements about Opera being ported to the Amiga and Netscape releasing their source code, a lot of people have been jumping up and down with sheer excitement over the "new" browsers that they expect to be receiving.

But let's not forget that we already have three extremely capable browsers – browsers that have been created especially for the Amiga by programmers who are dedicated to our computer.

Most of the extra "features" offered by the big browsers are actually plugins. Things like Java, RealAudio and Shockwave are not handled internally, and are unlikely to be included in the Netscape source code release. There are two main reasons for these not being available.

The first is that most current Amigas don't have the CPU power to handle these effectively. Even with the sort of coding genius that goes into programs like MPEGA it's still a heavy load. This will change now that the progression to PowerPC has been confirmed.

The second reason is that many of these use a proprietry data format, and the owners will not release it for porting to the Amiga, possibly largely influenced by the first factor.

It may turn out that the real benefit of a port of Opera is that it shows the mainstream companies that the Amiga is capable of doing the same things as PCs and Macs.

Opera for Amiga? Soon.

A new, multi-platform browser looks like it will also be available for Amiga users. Opera has gained quite a following in the PC world as a small and efficient browser, compared with the Microsoft and Netscape offerings. Now Project Magic plans to port it to a number of other operating systems, such as MacOS, Linux, OS/2 and AmigaOS.

A few days after asking for feedback from users of other platforms, they posted this message on their web site:

"Opera Software has officially added the Amiga platform to Project Magic, and the users came out in droves. In less than three days, the numbers surpassed those of the Linux/X11 platform, and there is no end in sight."

For more information see **http://www.operasoftware.com/alt_os.html**

Netscape for Amiga? Maybe.

In a surprise move, Netscape have announced that they are to release the source code for the next Netscape Communicator for free licencing.

"The company plans to post the source code beginning with the first Netscape Communicator 5.0 developer release, expected by the end of the first quarter of 1998." The terms of the licence aren't totally clear yet, but it is possible that we could eventually see an Amiga version of Netscape.

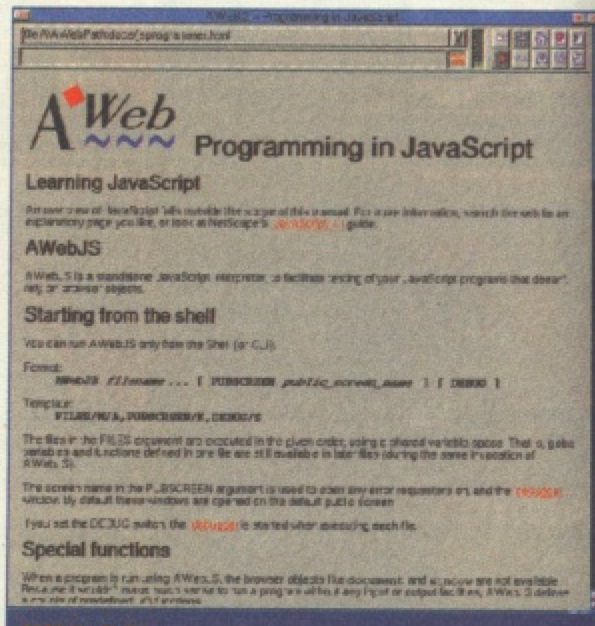
JavaScript for Amiga? Now!

JavaScript has finally reached the Amiga. One of the most useful features of the World Wide Web is accessible by Amigas at last.

AWeb 3.1 was released in mid-January, with full support for JavaScript 1.1. A JavaScript version of Voyager should be out fairly soon, along with an update to IBrowse at some time. JavaScript 1.1 is the version used in Netscape Navigator 3, while the later 1.2 will be released as an upgrade. JavaScript, not the same as Java, is a scripting language where the scripts are contained in the HTML of a web page.

This allows web authors to do things that were previously only possible with custom server side "CGI" scripts, a facility not normally available with standard dialup ISP accounts.

Other new additions to the AWeb update include; internal image decoding, internal email and news, secure connections, support for HTML 4.0 and several other changes. The update from 3.0 to 3.1 is available free of charge from **http://www.amitrix.com/aweb.html.** As you would expect, there is an exclusive demo version on this month's cover CD.



AWeb 3.1

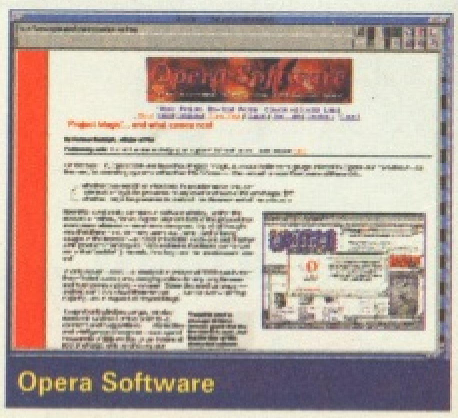
RealAudio for Amiga? Sort of.

After JavaScript, one of the most requested features for Amiga browsers has been RealAudio.

Despite the advantages of MPEG audio, many more sites use the proprietary RealAudio format to provide live, streamed audio. The copyright owners have always refused to allow an Amiga port of this format, but now there is one.

While there has been no definitive statement to the legality of this yet, the one thing it does prove is that the Amiga is capable of dealing with RealAudio. Currently only 14.4K audio streams are supported, and not the newer 28.8K version, although it is a start.

Neil Bothwick



Opera Software



Surf of the Month

Neil "I hate the phrase Net-Surfing" Bothwick goes err... surfing the Net once again.

Finding people

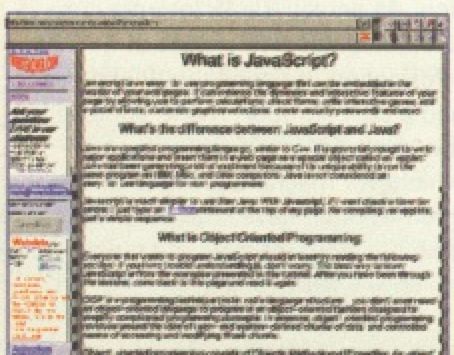
Have you ever needed to find an email address for someone? There are several sites on the Internet offering a sort of "Internet email directory" service. One of the most comprehensive is WhoWhere. Not only does it cover email addresses, but also home pages by category and even address and phone numbers for the US. Another site worth investigating is the Internet Address Finder.



WhoWhere

Web translations

Sticking with serious and useful sites for a little longer, Alta Vista provide more than just search engine facilities. This site translates text between several languages. You can either type the text into a text box, or give it the URL of a page to be translated. It should be simple enough to create a macro for any browser so you can automatically translate any page you come across in one of the supported languages. Currently it supports translation



Alta Vista Translations

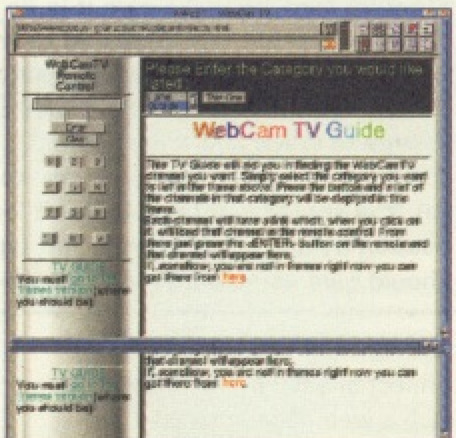


Planet Quake

between English, French, German, Portuguese and Spanish.

Quake

Looking forward to the imminent release of Quake? Planet Quake is one of the places for Quake news. If you don't want to look like a total newbie then have a look here for the latest information on Quake and QuakeWorld. It won't stop you getting blasted to bits when you meet experienced Quake players, but at least you won't die ignorant :)



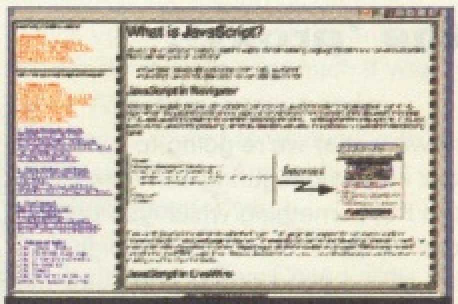
WebCam TV

Web cameras

There should be a copy of WebTV on this month's CD, so where are all these WebCams you can look at? WebCam TV is a categorised set of links to a large number of WebCams. Using an interface that looks like a TV remote control, you can browse through the sites before deciding whether any are worth adding to your WebTV address list.

Learning JavaScript

We should very shortly have at least two browsers supporting JavaScript,



Netscape JavaScript Manual

so a lot of people will want to know how they can use it to improve their web pages.

There are several useful sources of info. The first place to look is Netscape's own JavaScript manual, since they wrote it in the first place. The link in the boxout is for version 1.1, but this links to the 1.2 manual if you want more information. There are many other sites with information and resources. One such is by Paul Kolenbrander, author of HTML Heaven and AWeb beta-tester.

His site contains commented examples, with source code, that you can cut and paste into your own pages. Other sites, such as those by Tim Wallace and WebTeacher have links to download the entire tutorial as a single archive, for browsing and reference offline. Another useful site is the 'jbarta one'. This contains links to a whole range of web resources; buttons, backgrounds, sounds, scripts and much more.

Books

If you want to learn in depth, you can't beat a good printed book for tutorials and reference. There are several good bookshops online now, with a wide selection, search facilities and online ordering. You may see better prices in the US based bookshops, but do allow for possible shipping, duty and VAT charges, along with the longer delivery times.

And finally...

... as they always say on the news before the trivial, light-hearted story, so here's ours. Home pages about pet cats aren't exactly novel, but this is different. Anyone wanting to to toilet train their cat must look at this page. Can anyone do better?

Neil Bothwick

URLs

WhoWhere
http://www.whowhere.com
Internet Address Finder
http://www.iaf.net/
Alta Vista Translations
http://babelfish.altavista.digital.com/cgi-bin/translate?

Planet Quake
http://www.planetquake.com
ClickBoom
http://home.ican.net/~clkboom/quake/

WebCam TV
http://www.access-granted.com/webcamtv/index.html

Netscape JavaScript Manual
http://home.netscape.com/eng/mozilla/3.0/handbook/javascript/
Paul Kolenbrander's JavaScript pages
http://www.dse.nl/paul/amiga/javascript.html
Timothy's JavaScript Examples
http://www.essex1.com/people/timothy/js-index.htm
Web Page Authoring Resources
http://junior.apk.net/~jbarta/
JavaScript for the Total Non-Programmer
http://www.webteacher.com/javatour.htm

The Internet Book Shop
http://www.bookshop.co.uk
Blackwell's Online Bookshop
http://www.blackwell.co.uk/
Book Stacks
http://www.books.com

Misha the Cat
http://www.rainfrog.com/misha-cat



Misha the Cat

Wired World



Mat Bettinson, that Net surfing type geezer takes a dip into the glorious world of the 'proxy'.

We're taking a break from the HTML tutorial to look at a subject which I've received plenty of email about – connecting the Amiga up to a PC so it can share an Internet connection.

Obviously some of you reading will understand the pros and cons of this while others might view it as blasphemy. The truth of the matter is that in an ideal world, we'd slave the PC off the Amiga internet connection, especially since Windows has so many security flaws!

Unfortunately there's no real mechanism to do this and there is a wealth of exceedingly good software on the PC to allow us to accomplish this task. The software we need is called a 'proxy' which acts as a go-between from one computer and the Internet. In fact, because of the wealth of Internet services, no-one proxy can accomplish what we want to do so we need one of these PC-based all-in packages to do all that's required.

So this month's Wired World has good news and bad news. The bad news is that we're going to have to talk about configuring software on the PC, something which you really don't expect to see in CU Amiga but it's all in a good cause. The good news is that the Amiga has a superb TCP/IP stack in the form of Miami making the whole process virtually transparent at the end of the day, actually better than another PC in the same position.

There's quite a few tricks and tips to this process but we'll provide the basic mechanism for getting it working and some background information to understand what's really going on. This background information should be a good reference even if you don't want to network an Amiga to a PC.

Conventional proxies

You may be familiar with Web proxies since we've covered this in the distant past in Wired World and it's common to use a Web proxy on your Internet provider to gain performance. By entering our browsers configuration options, a proxy server can be entered. This means the browser will no longer attempt to connect directly to the Internet to fetch a web page, instead it will send a request for the site and data we require to the proxy server, who will send it to us. The upshot of this is that proxy server will have a much better connection to us than all the Internet's Web sites and it'll thoughtfully cache requests so if we revisit a page, it'll send the graphics very quickly. The PC software we'll look at later can be used as a Web proxy at the very least.

Unfortunately there's all kinds of other services such as FTP, this also has a proxy service with a different protocol. Sadly Amiga FTP clients with FTP proxy support are very thin on the ground; AmiFTP is the only one I'm aware of (available from the Aminet or the CD of course). Then there's the matter of fetching mail for which no standard proxy system exists and so on...

In this case, we're either out of luck and must use the PC to perform those tasks or we use mapped ports. This requires more explanation. An actual TCP/IP Internet connection needs two pieces of information. It needs the IP address and a port number. The IP address is the 'dotted quad' number for whichever machine present on the Internet must have. The port number matches with the type of service which we want to use.

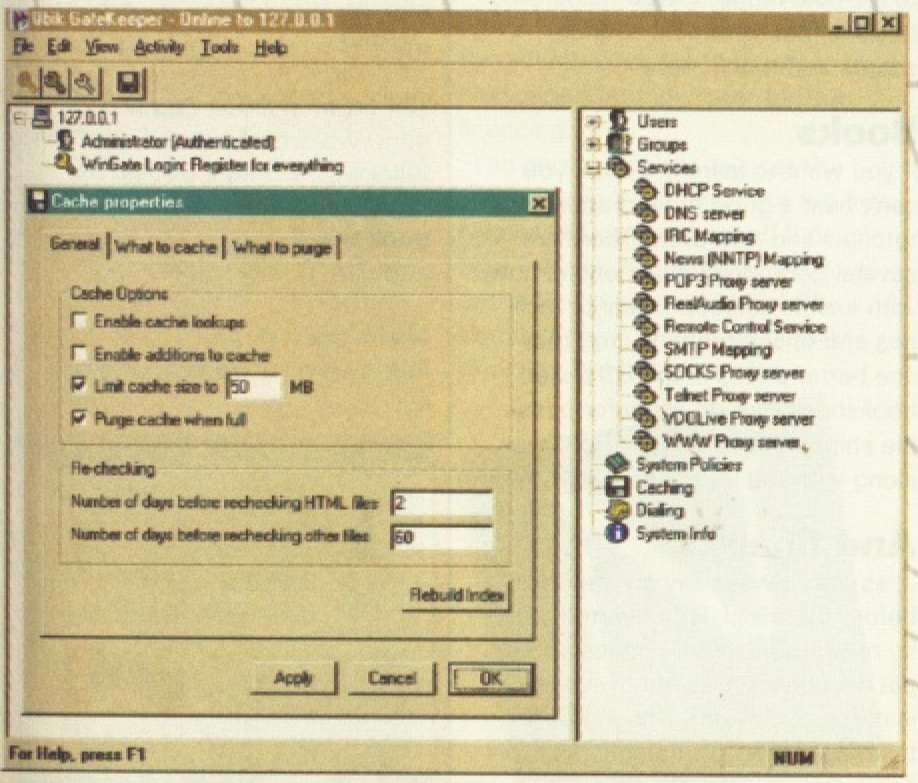
Say we want to make an FTP connection to a site. First of all we have an address: 'ftp.cu-amiga.co.uk', for instance. When we

Getting the PC and the Amiga networked

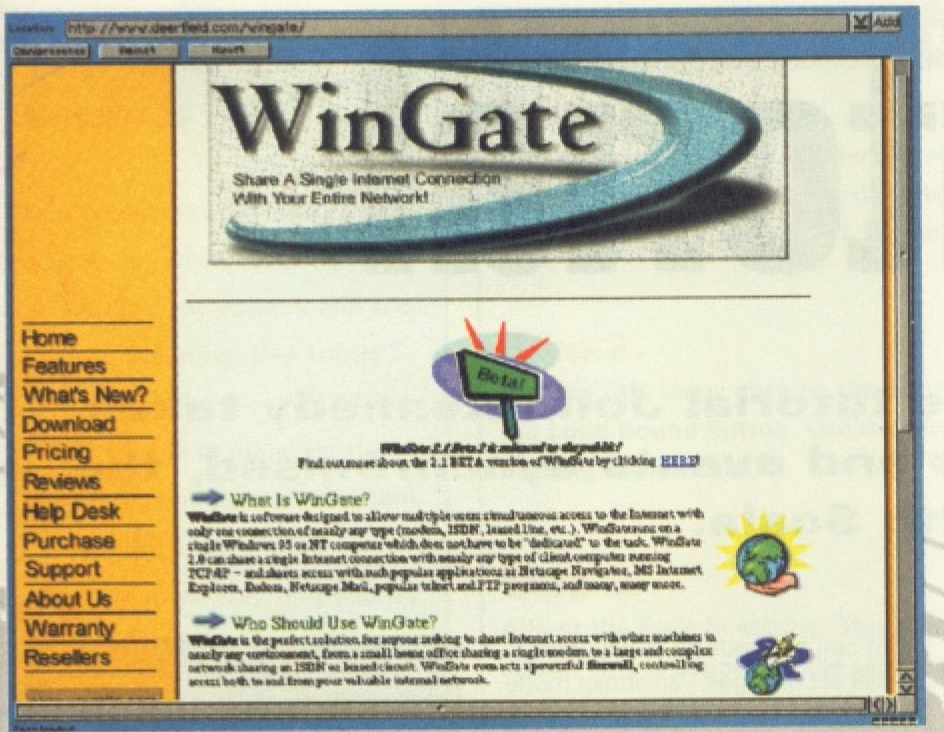
It's all very well working out how to share the Internet connection but before any of this can happen, we need a network between the Amiga and the PC. The easiest way to do this is via Ethernet. Network cards on the PC cost only a few pounds and are very easy to set up, but on the Amiga they are rather more expensive of course. One can opt for a Zorro based Ariadne (Blittersoft) or Hydra card (Hydra systems), or a CNet/Dlink PCMCIA based unit with the PCMCIA Ethernet drivers – also found on our CD.

It is theoretically possible to network an Amiga and PC via a nullmodem link. The Amiga side of this is extremely easy as it's just another interface type to Miami and it has a built-in serial driver anyway. The PC side is more problematic as you'd have to configure it as a dial-up PPP device, and of course, there can only be one dialled up at a time in typical Windows short sightedness so that plan won't work. I'd be extremely interested in finding out if there are any cheap and easy ways to parallel/serial link a PC and Amiga for this kind of task. If anyone knows, please drop me a line.

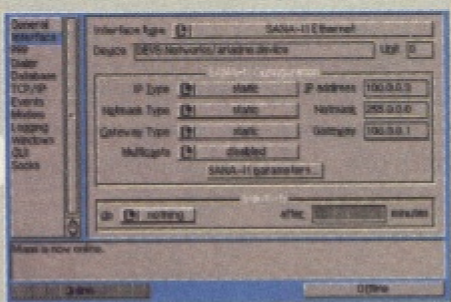
As a general guide to Ethernet connecting the Amiga and PC, follow this ultra quick and dirty guide; make your dialup adaptor 100.0.0.1 on the PC, set the netmask to 255.0.0.0. You should already have the TCP/IP protocol bound to the dial-up adaptor and the Ethernet card, so make sure it is. To modify this setting, go to the properties of the TCP/IP bound to the Ethernet in your network control panel on the PC. On Miami, set the Interface type to SANA-II Ethernet. Insert the driver for your Ethernet card in the device box. Set IP type to static and enter 100.0.0.2. Enter netmaskl of static and 255.0.0.0, Gateway type as static and 100.0.0.1 (what you set the PC to). You should just be able to hit 'online' and that's it. Test the connection by going to the shell and typing 'MiamiPing 100.0.0.1' which should give you a ping report to the PC if all is well.



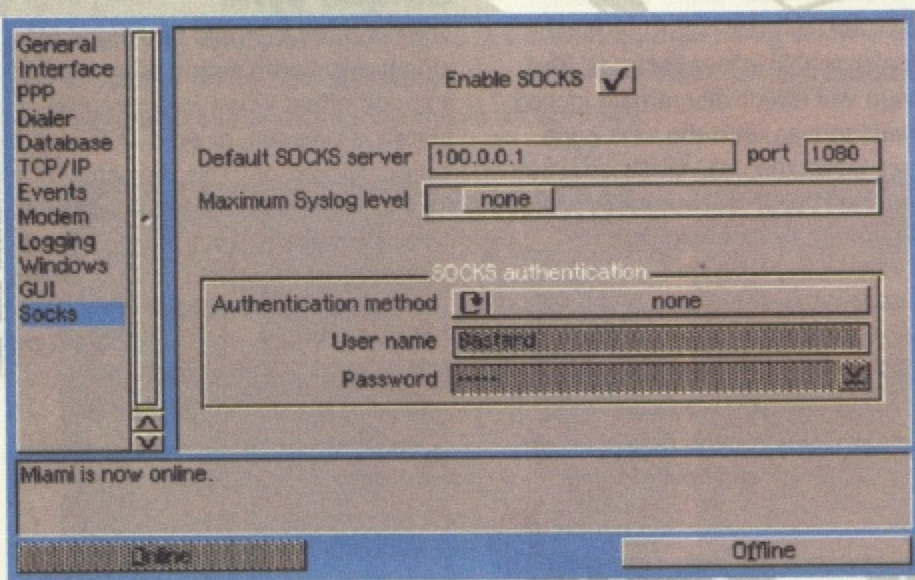
▲ **Here's Gatekeeper, first order of business would be to stop it from caching our Web access via SOCKS. In fact, you can also disable this from the SOCKS properties with lots and lots of settings.**



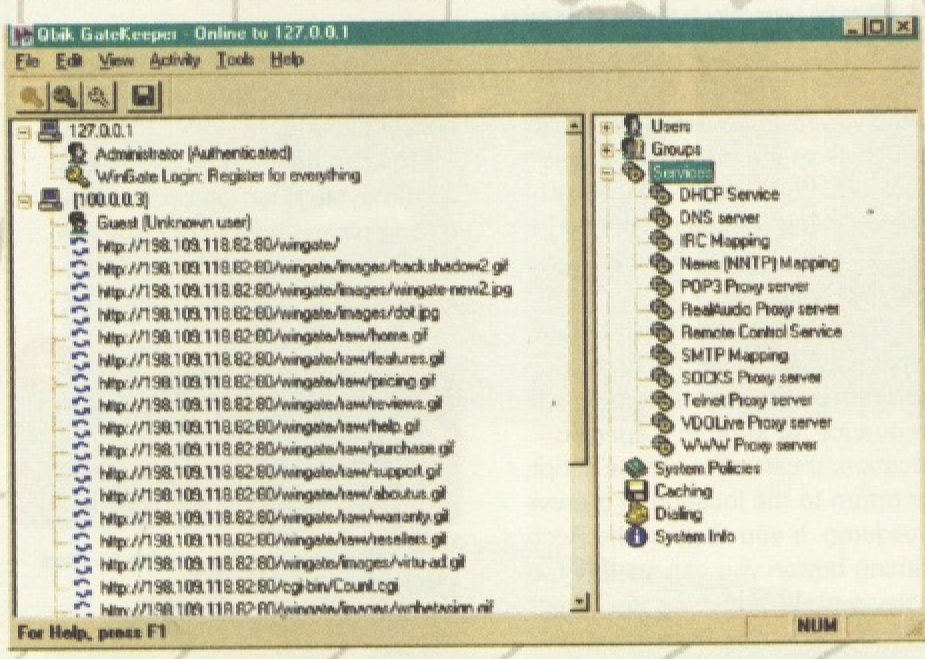
▲The Wingate PC page, as usual, appears quicker and nicer on the Amiga than it does on the PC.



▲ Setting up Ethernet connectivity in Miami is a doddle.



▲ All we need to do is turn SOCKS on and put in the PC IP address.



▲ Here's Gatekeeper on the PC showing all of the Web access piped through from the Amiga.

ask to connect to this first of all; your TCP/IP stack will ask whatever 'domain name servers' or DNS servers you have; what the real address is for ftp.cu-amiga.co.uk, and they'll return the number we need. Then the TCP/IP stack will attempt to connect to that IP address on port 21 which is reserved for the FTP protocol. Complicated but we are beginning to get there.

Pull your SOCKS up

Fortunately Miami takes the hard work out of this because there is an underlying protocol which can be used for all TCP transactions to pump them through a proxy machine. Now if we can run a SOCKS server on the PC, all we need to do is run Miami on the Amiga and this dead clever bit of software will transparently send requests to the SOCKS server so we don't need to change a thing on the Amiga Internet clients.

Sound good? Damn right it is. You'll need a new version of Miami to get this working which you'll find on the cover CD or on the author's home page at: **http://www.nordicglobal.com**. The bottom option in the list on the left of Miami's GUI is Socks, click on that page and you'll see an Enable SOCKS tick box. Tick that, then put in the IP address of the PC in the Default SOCKS server box and we're ready to rock!

Wingate 2.1

Now we come to the dreaded PC software and the best option here is a package called Wingate. Only the 2.1 beta version actually works with Miami SOCKS so it's vital that you obtain this version. Once again it can be found on the CD called wg21b295.exe in the root of the CD.

You can also get it from: **http://www.deerfield.com/wingate/** which also has a lot of documentation which will help out if you face some problems. Just run this on the PC to install. It'll ask basic questions during the installation procedure which you should know the answers to, but don't worry too much if you don't. Without a licenced code, Wingate is limited to working with a single client (your Amiga) but this should be fine for you.

The PC is strangely devoid of free software so if you need more than this, you're going to have to get the wallet out I'm afraid; 2 users costs $US60 and five costs $US110, PCs are an expensive business...

After installing Wingate, you may like to make it start every time from bootup. Go to the start menu, settings, taskbar. Enter start menu programs advanced, and you should find a tree including Wingate. Copy the Start Wingate Engine into the StartUp folder and it'll be running every time the PC starts but thankfully it won't bother you with GUIs or the like so I recommend it.

From the start menu, run Gatekeeper. This'll ask you to log on, don't enter a password and you'll be given the option to set one up. Gatekeeper allows you to modify the Wingate engine and is just a front end to that, which can actually be run from other PCs on the network, hence the login business.

Thankfully for Wingate 2.1, it will install the SOCKS protocol as standard presuming you left all those checkboxes alone when it was installed. You can see the services Wingate is running by clicking the services icon on the right hand list. Hopefully we won't need to modify these too much but you can by clicking on them and selecting properties in the standard Windows manner.

One important thing to look at is that Wingate defaults to be quite a sizeable web cache as well as a proxy and you may not desire this effect to save hard drive space on the PC. To turn it off, double click on the Caching icon and turn the top two checkboxes off and hit apply. After any change here, it's vital to select save changes from the Gatekeeper file menu.

With this all done, the Wingate engine running, and Miami fired up on the networked Amiga, you should be able to connect to the Internet as normal from the PC, then run an Internet application on the Amiga. Leave Gatekeeper open and you'll see a status display of the SOCKS referrals in action. Note! It's not necessary to configure a proxy in your Amiga Web browser if you use this method, that's only required if you're not using SOCKS or if this fails for whatever reason.

Web, FTP and standard shell tools such as ping and trace should all work, as should email. There seems to be some issues with IRC clients however and I'm yet to find a solution. One can either get rid of SOCKS and connect directly to the PC with the client (the WinGate installer asked you for an IRC server already, if you connect to your PC, you'll connect to this server) or use a client on the PC until the matter is resolved.

Once again, if there's anything you'd like to see in Wired World, drop me an email... or don't, none of you bother going by my inbound mail anyway. ■ **Mat Bettinson wiredworld@mats.net**

Scala Tutorial

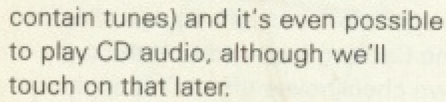
PART 2

In the second part of this tutorial John Kennedy takes a look at keeping sounds and events synchronised, the secret key to success with Scala.

Sound is important for any Scala project. It adds depth and makes a presentation look more professional. On an almost subliminal level it makes an interactive program considerably easier to use, by adding all-important feedback. Scala is geared up when it comes to sound, and will happily replay sound samples (a good selection were supplied with the coverdisk), MOD files (which contain tunes) and it's even possible to play CD audio, although we'll touch on that later.

It's vital that the sounds are triggered at the correct time. In other words, they must be synchronised. This month we'll look at how you can make sure your visuals and sound effects happen when they are supposed to happen.

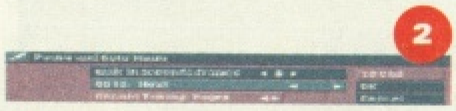
As you know by now, a Scala project consists of a collection of pages. Each page can contain text, animations and other events, and each page is displayed in sequence. Your presentation proceeds as Scala moves from one page to another. When you first start a Scala project, the default action is to wait for the mouse button to be pressed. You can see this in the detail bar which appears when you create a new page:



▲ Each Scala page includes a timer or mouse function to control how long it is displayed.

Until this Pause event happens (that is, either the mouse is clicked or the timer expires), the first page won't move on. Scala will wait forever, and obviously this limits the usefulness of your projects. Yes, of course there are times when you want the Pause setting to be permanently waiting for a mouse click – for example, if your first page is a menu screen consisting of different options for your users to select, then you will not want the menu to vanish within a few seconds. The page will effectively remain locked: Scala moves onto the next page only when the user clicks on a button, and it is this event which forces the jumps to a new location.

However, if you are creating a slideshow or a presentation, then you'll want Scala to move on after a few seconds: all by itself. To achieve this, you only need to click on the Pause setting and bring up the requester as shown below.



▲ Editing the pause delay by clicking on the pause setting from the main editing window

Now you have several options. You can stick to the wait-for-a-mouse-click timing, or select a number of seconds and frames (each of which is 1/25 of a second) for the page to be displayed.

The setting underneath defines what happens after this time: Scala can move onto the next page in the sequence, or jump to a specific location. It can also exit the script, or return to the location of a previous jump. If you click on the Record Timing button you can specify the delay time by watching the page and then pressing 'Return' when you gauge enough time has passed. (Hit escape to return to the menu).

Using this technique you can make sure your Scala script moves along with the right kind of pace, and if you want, never locks up totally waiting for someone to come along and start clicking. Going back to the menu example: if no selection is made within five minutes, the script can be made to move onto another set of pages – an attract mode for example.

Simple sync

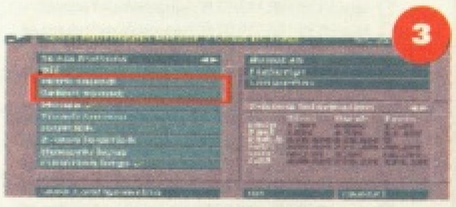
The simplest example of synchronising an event with sound is to create a sound effect when an on-screen button is pressed, or area of the screen clicked on. This is such a fundamental task that Scala makes it particularly easy to set up the sound sample to be triggered. In fact, there are two possible sounds:

1. A sound which is triggered whenever the mouse pointer is moved over a button or other interactive area.

2. A sound which is triggered when the button or the area is actually selected.

The first sound event is called a Mark sound, and the second one is a Select sound.

You can define both by clicking on the System button on the main editing page, and then clicking on the Configuration button until the Scala Button option appears.



▲ From the System menu you can alter the sound effects your buttons make

Click on the Mark Sound button, and you will bring up this requester.

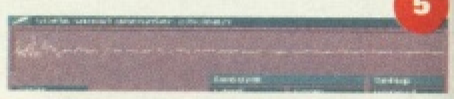
You can then alter the sound event to Play, and then click and select the name of the sample that you require.

This sound sample is a standard Amiga IFF sound file, and you can therefore use any sound: even ones you sampled yourself.



▲ Use the Play even to trigger the sound sample. You can adjust the volume and balance from here too.

The sound requester has a few surprises, including the ability to actually edit the sound sample or directly make use of a sound sampling hardware to grab new sounds.

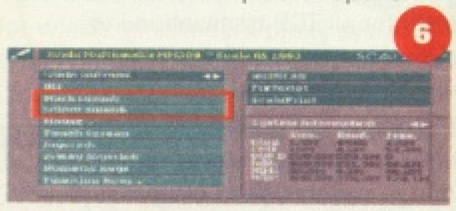


▲ Click on Edit, and you'll discover that Scala has a built in sample editor. I never knew there was so much in it!

Sound advice

There are other ways to achieve the same result of course: if you want different sound samples to occur depending on which button is selected, you can trigger the sound from the new page. Each button will lead to a different page, and so a different sample can be played.

Adding a sound event to a page is easy: from the main editing window click on the Sound button, and the same sound requester opens.



▲ Click to add a sound event to a page: not just sound samples, but MOD files too!

In addition to Play – you can also use the Stop sound event to instantly stop a sound playing. Select a MOD file instead of a simple IFF file, and you can control fade in/out settings, as well as alter volume and pause. Scala's control of sound is extraordinary, and it'll take a while to learn all of the options on offer. ■

John Kennedy

Top tips on sounds

Don't make your button-click sounds too overpowering. Loud or over-the-top sounds will soon become irritating. Use subtle 'clicks' and 'ticks' – after all the whole idea is to maintain the illusion of using a real, mechanical switch.

In the same way that you try to create a uniform look to your pages, using certain fonts and image for certain functions, take care with the sounds. Remember to be consistent: use the same or similar sounds for all the positive actions made by the user. This forms 'feedback', helping the user to interact with your program.

Try making your own music video. Scala can replay animations very smoothly, and can quickly change from one to another. By creating your own images and animations, and syncing them to the audio playback, you can create very professional results.

Use the real-time setting to adjust the timing for your pages. Start the MOD file playing, and you can control when subsequent pages pop up by tapping on the keyboard.

Scala is perfect for making cartoons: draw and animate your cartoon characters in a program such as Personal Paint. Split the animation into sections if necessary. Now use Scala's sound replay facility to sync sounds to actions, providing a complete soundtrack for your animation. Record it to video for best results.

Example – Adding music to a slideshow

Step1.

Create your slideshow by loading your images as backdrops to pages. The number of pages in your project is therefore the number of pictures. Create an extra page as your title, and place it at the top of the scripts so it is executed first. Put some text here to describe the pictures.

Step 2.

For this title page, click on the Sound element. The sound requester will pop up, and you should click on the Load Sound button. Use the file requester to track down the MOD tune you want to use as your backing sound track.

Step 3.

Adjust the Fade In setting. This won't suit all tunes, but when used carefully the fading in is a classy effect. This is especially the case if you fade in the title picture at the same time.

Step 4.

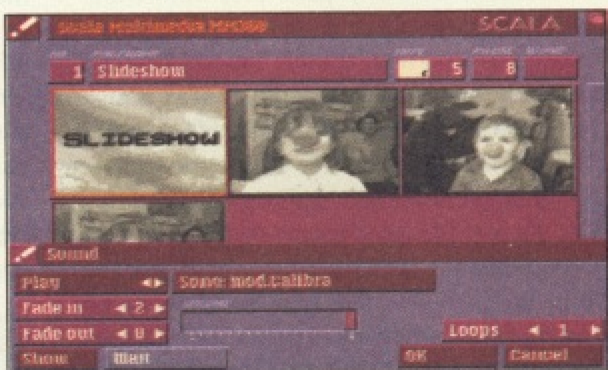
The tune will keep playing until you tell it to stop, depending on how many repeats you set using the Loop option. Go to the last page in the slideshow, and enter a Stop sound event. Again, use the Fade out option to avoid cutting the music off abruptly.



1.



2.



3.



4.



Sound Lab

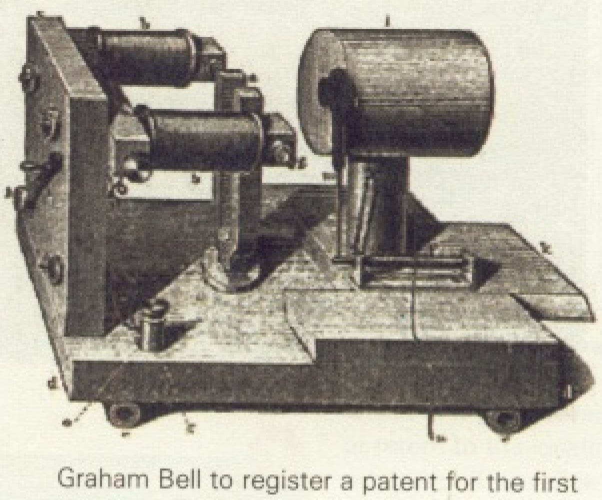
Sound Lab takes a look at what the Internet has to offer curious Amiga audio fans and musicians.

There is a wealth of resources on the internet for musicians and audio fanatics. This month we explore some of the best and more interesting sites throughout the Web. Whether you are looking for detailed information on the origins of synthesizers or just want to find some cool sounds to compose or experiment with, it is all out there somewhere.

Origins of electronic music

Do you know when electronic music originated? Would you believe that it all started over one hundred years ago? The origins of electronic music can be traced back to the work of Hermann Ludwig Ferdinand von Helmholtz ... a name as long as the history of electronic music itself. It was Helmholtz (1821-1894) who, through his research on electromagnetically vibrating tines and resonating spheres, did some of the first work using tones to create complex natural sounds.

Reportedly, one of the earliest electronic musical instruments was accidently discovered as a result of research in telephone technology. Elisha Gray, who arrived at the patent office one hour after Alexander



▶ The Helmoltz Resonator

Graham Bell to register a patent for the first telephone, discovered that he could control sound through a self-vibrating electromagnetic circuit and in doing so invented the single note oscillator. Gray's first instrument, the Musical Telegraph, could play notes over a two octave range and transmitted oscillations made by steel reeds over a telephone line using electromagnets.

120 Years of Electronic Music – charts the history of electronic music, from Early Experiments (1870-1915), through the Vacuum Tube Era (1915-1960), Integrated Circuits (1960-1980) up to current day Digital



▲ The Musical Telegraph (1876)

Technology (1980-present). This site is a tremendous source of information about the technologies and instruments, people and accidents that made this music what it has become today.

http://www.obsolete.com/120_years/

Kraftwerk

Moving on to 1968 we come to the meeting of the founders of modern electronic music, Kraftwerk. Florian Schneider-Esleben and Ralf Hutter met at the Kunstakademie (Academy of Arts) in Remschied, near Dusseldorf, Germany. Later they both went on to be classically trained at the Dusseldorf Conservatory. They formed a group called Organisation whose early music was a mixture of sounds, feedback and rhythm. In 1970, the two went on to create the KlingKlang studio and Kraftwerk was born. It was their music that began the evolution of house, techno and industrial music; as well influencing many other bands and styles of music. Be sure to visit the official Kraftwerk website at: **http://www.kraftwerk.com/** It does not contain much, but it is definitely Kraftwerk.

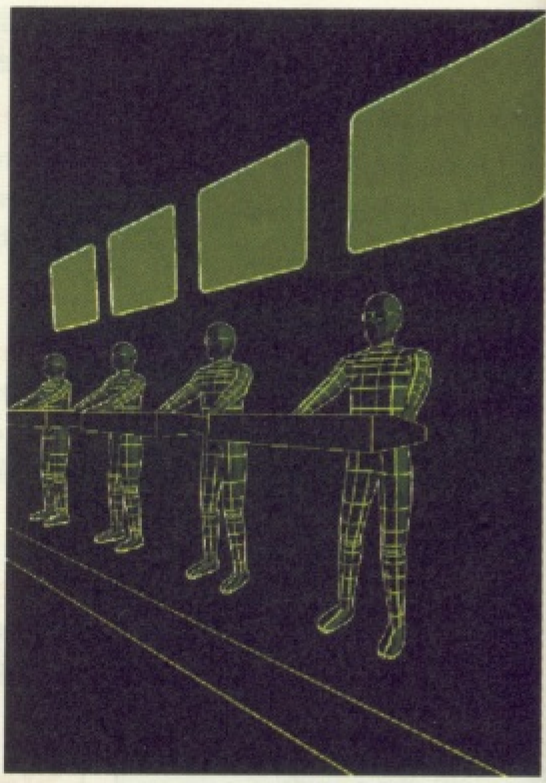
For more detailed Kraftwerk historical information be sure to visit the Kraftwerk: The Early Years site, at: **http://www.geocities.com/SunsetStrip/8880/**

Music machines

One of the largest and most comprehensive resources for information about electronic musical instruments is the Music Machines Web site.

http://www.hyperreal.org/music/machines/

There is a lot more here than it appears and it is definitely worth spending some time looking around. The Yesterday's Favourite Pages and the animated Winky Suggests



▲ Kraftwerk

areas can be very helpful.

The site is extensively cross-referenced, so you can get to some information in several different ways. In particular, the Categories section is one of the easier ways to find the information you are looking for.

http://www.hyperreal.org/music/machines/categories/

From there, you can get to the DIY sections which contain information about Do-It-Yourself projects, including: schematics, part sources and other details on building and repairing electronic instruments. The Manufacturers link will take you to a selection list of equipment manufacturers. From there, you can choose a manufacturer and then select a particular device.

Each device section contains various information, including: patch/sound data, pictures, sysex documentation, specifications and more. If you are researching to buy a particular device, this is the first place you should look. For more information, follow the Links link which takes you to lists of other related sites and official manufacturer sites.

You might also want to follow the PriceLists link to see the New and Used Gear Price Lists. This will give you an idea of the current market price for many devices. If you follow the Samples link, you will find links to downloadable sounds from more than 20 electronic instruments, including: Arp Odyssey, Linn LinnDrum, Moog MiniMoog, Roland TR drum machines and many more. In the SoundLab/Sounds/ directory of the CDROM, you will find some sample sound files from the Music Machines site. There is a lot more where they came from.

This site has it all and more... you can even email virtual synth postcards to your friends.

http://www.hyperreal.org/music/machines/ecards/

I cannot say enough good things about this site. It is tremendously well done and

always expanding to better meet your needs.

Synth zone

The Synth Zone is a large resource of links to sites related to: MIDI, electronic instruments, synth patches, music magazines, drum machine programming, music theory and lessons, newsgroups and much more.
http://www.synthzone.com/

Sounds, sounds &... ...more sounds

If you are looking for sounds, you will not have to look very hard. They are everywhere.



▲ Music Machines

We have included some sounds in the SoundLab/Sounds/ directory of the CDROM that were found on the sites mentioned here, but this is just a sampling from the hundreds of thousands that are available.

Probably the largest and most extensive site on the Web, is Earth Station 1. This site contains many thousands of sounds in several categories, including: television, movie, historical, cartoons, radio, space, war, and more.
http://earthstation1.simplenet.com/homepage.html

The WAV Place is another good sound resource, although its organisation can be a bit confusing. It contains many sounds along with short descriptions, including these categories: romance, horror, people, commercials, sports, holiday and more. If you are looking for some good sounds to enhance your Workbench, check out the Computer Voice and Sounds section.
http://www.wavplace.com/main.htm
Sound America claims to have over 22,000 sounds on-line. These sounds are organised into nine categories: cartoons, comedy,



▲ EarthStation

movies, television shows, spoofs, sound effects, war of the worlds, miscellaneous and themes.

I had problems getting WAV files from Sound America to play using Play16. Thomas Wenzel, author of Play16, shed some light on the problem. Apparently, these are not WAV files at all, but are actually MPEG audio files with a WAV header added on. Play16 does not know how to handle these files, but Thomas tells me that



▲ The WAV Place

the next version of MPEGAHI will be able to play them directly.

I tried the various MPEG audio players currently available, and was only able to get MPEGA to play these disguised WAV files as is.
http://soundamerica.com/
If you are after MPEG3 audio files, The MPEG Repository is one of the largest libraries on-line.
http://members.xoom.com/repository/index.html

If these sites do not have everything you are looking for, the Cool Sounds site contains links to many more sound sites. Here you can find your way to sounds of Star Trek, Star Wars, Beavis and Butthead, Monty Python and Sienfeld. Also, sentimental, funny, presidential, and much much more.
http://coolsound.simplenet.com/index.html



▲ Sound America

RealAudio

Amigans have been able to play WAV, AIFF and other common audio formats for a long time; but now many sites are adding RealAudio sounds. Until recently, Amigans could not listen to them; but that has now improved. RA is a RealAudio player with support for 14.4 KB/s files.

Higher quality 28.8KB/s files will not work. he program is very quick and on a 68030 at 25MHz will play back in near real time. Faster machines should have no problem achieving full speed. The program supports streaming audio, for use with Internet radio and similar RealAudio sites, but unfortunately this is not currently supported by Amiga browsers. However, an included sample ARexx script will let you use RA with RealAudio streams. RA requires ixemul.library and a sound player capable of playing 16 bit audio files. Play16 and AHI can be used for this purpose.

In particular, the AHI AUDIO: device will allow you to easily pipe the output of RA directly to your sound card or internal audio for immediate play back. You can find out more details about using the RealAudio player by visiting its support site.
http://csc.smsu.edu/~strauser/RA.html

You can find the RealAudio player and other sound players discussed here in the SoundLab/Players directory on the CD-ROM.

MIDI files

If MIDI song files are what you are after, MIDI File Central is the place to go to find them. The files are divided into four main categories: themes, collections, artist/group and the mixed bag.

Each is then sub-divided. You can find everything from Star Trek to Disney, Country to Classical, and Abba to ZZTop. In the SoundLab/MIDI/ directory of the CD-ROM, you will find some sample MIDI song files from this site.
http://neburton.simplenet.com/

Soundsite

If you want to find out more about the way sound works or about current applications of it, visit the on-line journal of Sound Theory, Philosophy of Sound and Sound Art at the Soundsite website. Among the essays that this site contains are: Einstein and Cartoon Sound, Circuits of the Voice – From Cosmology to Telephony, and Extracts from Modes for Listening.

There is also a long and detailed list of links to sound artists, artworks, projects, journals, organisations and other related sites.
http://sysx.apana.org.au:80/soundsite/

Magazines online

You can find a tremendous resource of information from Electronic Musician's Article Archives. There you can enter in a search string and be presented with a listing of related articles from the magazine's many years of back issues. These articles are all available on-line for you to read.
http://www.e-musician.com/index.html

Unfortunately, there is no way to get a listing of all the articles available, but if you browse on over to the young monkey studios site you can find a collection of Magazine Indexes in the Who Nose? section, which includes a fully categorised index of Electronic Musician articles and reviews (1988 – Current) as well as many other magazines. There is also an Audio Technical Information section containing other miscellaneous resources.

In the Background section, you will find a small museum of custom and commercial music equipment.
http://www.youngmonkey.ca/

Webside Story

If you still cannot find what you are looking for, be sure to visit Webside Story's World 1000 site. They have a Top 1000 Music Sites listing that is sure to get you headed in the right direction.
http://www.hitbox.com/wc/world.100.Music.html ■
Dhomas Trenn

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Q&A

Don't worry how complicated your technical problem is, challenge our panel of experts and they'll try to fathom it out. Please don't forget to provide us with as much detail on your systems and problems as possible, to help us solve things for you.

Logos

Mysteries and meanings ...

WORKBENCH – **Solutions to those everyday troubles with your Workbench.**

EXPANSION – **If you need help getting more from your Amiga, just ask!**

COMMS – **All your Internet and general comms problems swiftly solved.**

SOUND – **Trouble making your Amiga sing? We've got the answers here.**

HARDWARE – **Technical matters beyond the scope of plug-ins and plug-ons.**

SOFTWARE – **Answers to queries on particular pieces of software.**

HELP – **General queries which just don't seem to fit in anywhere else.**

CD-ROM – **Specific help with CD-ROM solutions and driver problems.**

GRAPHICS – **Problems with art and design? Help and advice is at hand.**

PERIPHERALS – **Printers, monitors, we'll solve your peripheral blues for you.**

RAM basics

EXPANSION

I am completely new to the world of computers, and having just bought an Amiga 1200 second hand I would like to get started on learning more about the machine and to play games etc on it.

I believe that my A1200 has a capacity of 2Mb of RAM. Can you inform me if I can increase this RAM capacity, either by installing something in the machine or by adding an extra piece of hardware?

I am sorry to ask you this very basic question, but without any help I cannot help myself. I received no manuals about my computer, so if you or any of your readers can help, I would be very grateful.

C. Malcolm, Gainsborough.

Yes you can. Flip your computer over and on the bottom you will see a flap which can be removed. Under this is a space for a RAM board or an accelerator. If you look at the edge of the hole toward the centre of the case you will see the edge connector for such a board to be added.

A RAM board is exactly what is says. They usually come with RAM fitted, up to 8Mb in total. Alternatively an accelerator card allows more memory to be added and includes a chip which makes your computer go faster. The cheapest accelerators are little more expensive than RAM cards, and the performance boost is well worthwhile, but like all things in life, the more you want the more you have to pay.

Serious business

HELP

I will be starting up my own business in the next couple of months, and I would like some help on using my Amiga to the full in this business. I have an Amiga 1200-030 22Mb and a PC, I will be upgrading my Amiga into a tower, and try and get a network card so I can connect the two up. Basically this is the kind of thing I was thinking about doing: Stick the Amiga into either an Infinitiv or Amigo tower, get an '060 card, graphics card, upgrade the disk drive to 1.44Mb, get 1-2 Gb hard disk, CD-ROM and some kind of printer switch box, because there will be more than one printer attached to the Amiga.

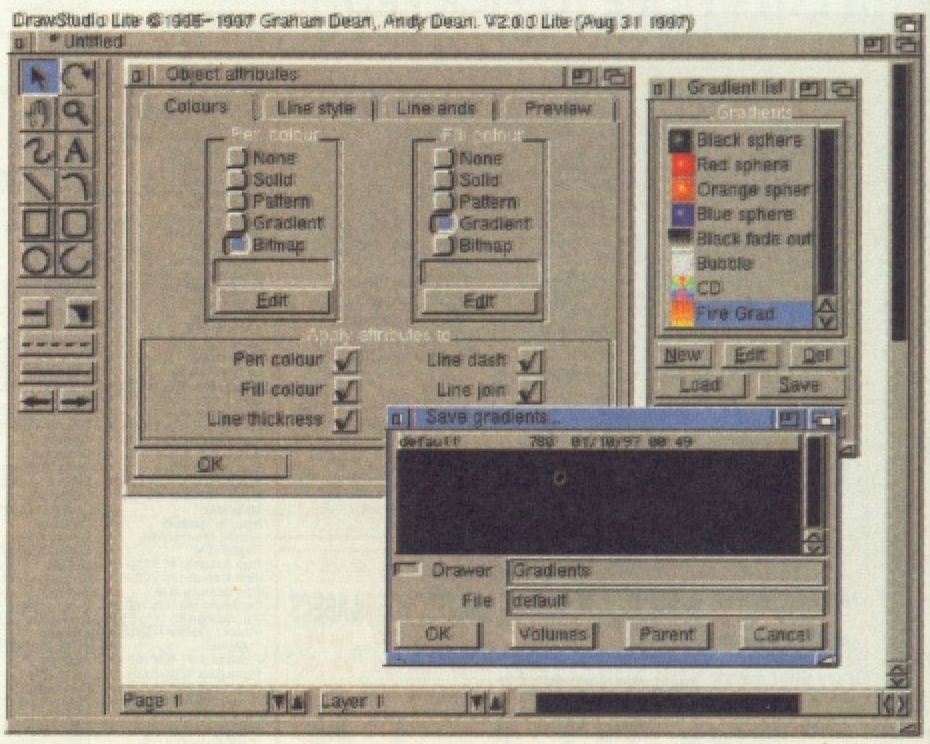
The software I'm not sure about, but I really want to get the best if possible. The main use for the Amiga will be DTP, graphics, printing and scanning. I really want to use my Amiga, because I believe in it, and it's more than capable of doing the job, I don't want to fall into the trap of using a PC just because every one else is. I know the Amiga has a handful of really great software, the top titles which are packed with features, rather than PD – not to say the PD isn't good though.

So basically I want your help, because to be quite honest there is no one else, unless I want to take the advice from the shops, and end up buying another PC...

Michael John Owen, Deiniolen

Well Mike with a rather general question like that I hope you are prepared for a rather general answer, but here goes.

On the hardware front, you look like you've got a good idea of what you are after, and it sounds about right to us. I would say that it is worth taking a look at this month's review of the Power Tower, and consider the possibility of the Ateo Busboard, which we are hoping to have in for review next month. This busboard will not only give you a graphics card, but has ethernet and SCSI cards very cheaply available too. We'll have to see it before we recommend it though, so keep your eyes open. Before you ask – yes, you'll need SCSI. Scanners may be a nat's cheaper in parallel, but the speed loss is a real pain.



▲ **DrawStudio Lite, a superb DTP package.**

You don't mention memory, but for DTP/graphics you should be looking at a minimum of 32Mb. The price of memory these days is low enough that you shouldn't think of going lower. If you can keep your costs down, then go for a 17" monitor, they are almost indispensable for laying out graphics.

Software-wise, look out for our review of the Amigas leading DTP package Pagestream 3.3 coming soon. ImageFX 2.6 is an absolute must have – contact Wizard Developments on: +44 (0)181 303 1800 to get your hands on the Amiga's number 1 image processing and scanning software.

DrawStudio/Lite is an excellent structure drawing package, available from LH Publishing on: 01908 370 230. While you are speaking to them, you better get them to send you the latest version of Turboprint – version 6 is due out around now – to get the best output from your printers. In case you find a desperate need for being more compatible with the world outside, you can run Quark via Fusion , the Mac emulator. Old versions of Quark can be bought for very little, and Fusion can be bought from Blittersoft: +44 (0)1908 261466.

They will also sell you Art Effect, the photoshop like drawing/imageprocessing package. Alternatively try and get your hands on, the superb but out of print Photogenics 2. Last time we heard, White Knight: +44 (0)1920 822321 had a few copies, and might be persuaded to do you a nice deal on it if you pick up some of your other gear from them.

Digital sampling?

I've just bought a state of the art (well, for this week anyway!) stereo system. I was pretty impressed with a little jack on the rear labelled CD Digital OUT. Surely I can bypass my sound sampler now and pipe this signal straight into my Amiga?

Please tell me it is possible and if I need a little add on to get it working. Maybe you could include this as your next DIY project?

M. Hayes, Lancashire.

The digital out is a CD audio bitstream, usually used for connection to an external digital to analog converter or a recording device with digital IN, such as most DAT or Minidisc recorders. Depending on the hardware you have it will

Tech Tip: Tower solution

The joys of tower conversions have been thoroughly explored by this magazine and the removal of the console case can be a very liberating experience for our favourite machine.

There do however remain a few niggles with a tower system. For a start there is the loss of the Led. It is possible to attach the tower Led to the Amigas PCB (see CU Amiga May 1997, page 31) but this is quite fiddly and I suspect that most people will not bother. And then there is the less tangible loss of the Amiga 'look'. The cases are either bland and featureless, or (horror of horrors marked as PC's!

These niggles are important because Amiga owners are perfectionists. Anybody who uses one and reads CU Amiga does so because they do not 'put up' with things they know can be better. Fear not, because help is at hand.This handy trick will solve both of these problems in a very simple way. It involves no complex work and best of all, only uses things that you would otherwise throw away.

You will need:
1) A vacant 5.2" drive bay.
2) A blank 5.2" drive bay cover.
3) The PCB from your original console case with the LED and wires still attached.
4) Your original console case.
5) And a hacksaw, a small drill, a pencil, sandpaper and glue.

What are we going to do?
We are going to remove the Amiga logo and Led from the console case and mount them in the drive bay. Simple enough?
First place the face of the drive bay cover over the LED holes and the logo and draw around it. Make sure that it is level and try to get the edge as near to letter "A" as possible because the PCB needs space to the right of the LED holes. When you are happy with the area you've chosen, cut it out with the hacksaw and smooth the edges with some sandpaper. Do take time to check the template mark because you've only one case to cut up. Now you can reattach the PCB. Before doing this, you may like to put something in between the LED to reduce the amount of light bleeding between them.
At this point you might be finished. Depending on the design of your tower and the accuracy of your cutting, it may be possible to simply snap the plastic oblong into the drive bay or hold it in with a little glue.

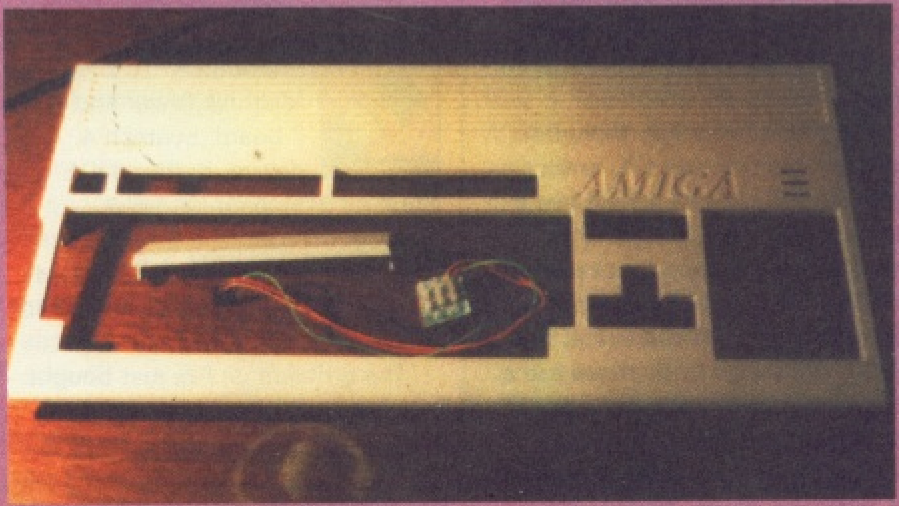
If this not possible then you still have a little work to do. Drill some holes in the front of the drive bay cover and until you're able to get the hacksaw blade in, then cut away the front so that the outside and the clips are left. Then replace the front with the piece you cut from the console case. If you've not already reattached the LED, do so now to check there is enough space and finally, check there is no problem with the drivebay cover being upside down in your tower design. When all these things are checked, glue the two pieces of plastic firmly together and then snap your new badge into place in your tower.

Gasp in awe that you now have an Amiga that dares to speak its name. Finally, plug the wires from the LED into the motherboard and they will work as normal.

If you're only interested in the logo, then this will fit nicely into the front of a 3.5" drive bay. If you do not have any spare bays, then you could just glue the logo on to your case, but this won't look at all neat which seems to defeat the whole object.









▲ The Jaz drive from Iomega.

either be a co-axial connection (normal wire, phono or BNC socket) or optical (small square slot for a fibre optic cable). While in theory this bitstream could be read into a computer and directly sampled, it is unfortunately not a simple task.

As you have correctly spotted, sending the audio output of a CD player through the sampler means you are wastefully converting a signal from digital to analog and then to digital again. There is however no hardware currently on the market to send the data into an Amiga. A DIY job would be feasible but tricky, especially for optical out as it would require an opto-electrical converter, so don't hold your breath. CDDA sampling from a CD-ROM drive is the easier way to pursue your aim of direct digital sampling.

VR Amiga?

PERIPHERALS

I am wondering whether you, or any readers out there, can help me. I own an Amiga 1200, the specs are unimportant as they won't be the same in six months. I'm looking for information about VR, I'm not talking W Industries/Virtuality standard, it's just good old fashioned curiosity.

1. Where can I get a Mattel Powerglove? It was a device made for the Nintendo NES or SNES, it kind of bombed out though, until revived more recently by a lot of VR enthusiasts. Unfortunately, the only place I have heard of it being sold is second hand shops in the US.
2. Do you know if anyone has ever released either a VR headset or shutter glasses for the Amiga?
3. There is one VR headset that I know of, the VFX-1. It was sold for the PC and as such comes with an ISA controller board, which you fit in your PC and connect the headset to. Would it be possible to fit this board to an ISA slot on a ZORRO? Obviously I would probably write a lot of code; for example device drivers and so forth to be able to use it in this way.
4. Do you know if there are any VR user groups in this country that I can turn to for help and advice? An Amiga specific one would be ideal.
5. Finally, am I barking mad?

I shall be eternally thankful of any help you or any reader can give me in my quest for affordable VR.

Karl Gronnenberg, Shetland Isles.

Shall I answer question 5 first? VR is an interesting hobby, and despite the image of NASA laboratories and MIT lab coats, is one you can actually pursue at home, but expect to put in a lot of work.

The first thing you should do is give Maplins a ring on: +44 (0)1702 554000 and order The Virtual Reality Homebrewers Handbook, order code NQ38R, £24.95 plus postage. This book is an up to date mine of information for the beer budget VR boffin, with guides to important components available, several projects for DIY VR gear, and a good generalised intro to 3D graphics.

They also have The Virtual Reality Construction Kit, order code AA99H, £24.95 which has a number of general projects to build, and its companion volume The Virtual Reality Programmers Kit, order code AN00A price £23.95, although both these are a little out of date now and are rather PC specific.

If building your own gear doesn't take your fancy, then options get a bit tricky. The Mattel Powerglove is now a much sought after rarity, but findable. Try advertising in the wanted section of Micro Mart or PC Mart magazines, ad papers like Loot and Exchange and Mart and on the internet. Of course if one of our readers has one to sell we will put them in contact with you.

The i-Glasses and the X-glasses were both Amiga compatible shutter glasses systems. They aren't exactly great and of course don't support motion tracking, but if you can find someone selling them second hand, they should be pretty cheap and Amiga software is already written. A pair of X-glasses recently sold via the internet for £40. As for the VFX-1, something like this would be the best solution, and ought to work fine in any Amiga equipped with active ISA slots. Check out the VFX-1 support page at: www.sailfish.exis.net/~bunda/supp.htm. The manufacturers website is at www.fortevr.com or they can be phoned on: 001 716 427 8604. As you say, you'll have to write the driver software yourself. As for software check this months CUCD in the magazine drawer and you should find some useful little bits and pieces.

Well I hope that gets you started, but you are soon going to need some specialised help. If you want to take this seriously, you're going to have to be on the Internet, where you will find numerous website and newsgroups relating to VR. Check out the sci.virtual-worlds and sci.virtual-worlds.apps newsgroups and www.i-glasses.com. If anyone out there is trying the same thing and wants to get in touch, write in and we will forward your mail to Karl.

Remember Karl, if you get it up and working, then tell us about it, I am sure many readers would be intrigued!

All that Jaz

PERIPHERALS

I have an AT A1200, Micronik tower and Zorro 2 board, Eyetech 4 device buffered IDE, setup as 0=maxtor hard disk, 1=Atapi CD rom, and 2=IDE Zip drive. Additionally I have a Blizzard 1260 + SCSI IV adaptor with a 4Mb and a 32Mb simm respectively.

The problem is; I've just bought an internal, SCSI Iomega Jaz drive. It is the only drive on the chain and has a setting of 4. When I tried using the SCSI boards supplied software it could not read the drive. I also tried to use the Workbench supplied hard disk prepping and partitioning software using the 1230scsi.device driver (instead of the scsi.device driver). It ran though the chain until it reached device 4 and then hung – just the software hung, the computer still ran fine.

This is killing me, I have a potential of 1Gb more storage, and no way to access it! Help me.

Graham Mitchell

You seem to have the basic principle correct, but getting these things to work the first time can be rather fiddly, and it's all too easy to leave something out. First thing to do is check that you are giving all the correct information about the jaz drive. I would recommend that you use RDPrep software for prepping your drive as it is a lot better than HD toolbox. You can get this from the Aminet (disk/misc/rdp391.lha) or from most PD libraries.

Give RDPrep the device name and unit number, by giving it the appropriate qualifiers from the shell. In your case this will mean typing:

rdprep -d 1230scsi.device -u 4

and you can take it from there.

If this still doesn't seem to work then you probably have a setup problem. You shouldn't be getting a unit ID conflict when there is only one device on the chain, so check the cabling and make sure the device is properly terminated – there is a little recessed switch in the back of the drive which should be set to the 1 position.

Standards?

PERIPHERALS

First of all congratulations on a fantastic cover CD (the free magazine that's attached isn't bad either). My set up consists of a bog standard A1200.

Just a few questions:

1. I recently purchased a 344Mb 2.5 inch hard drive (15 heads, 49 sec/t, 915 cyl) for £65. But I cannot format the damn thing. The drive is a PC (Pointless Contraption) drive and is second hand and I assume that it already contains a number of PC formatted partitions. Can you direct me towards a piece of software that can erase everything (including all previous partitions), format, partition and mount the drive.

I have tried HD Toolbox but it only seems to want to put 10Mb partitions on the drive and will not format

How to write to Q&A

You can send your queries (or a good tech tip if you have one) to Q&A, CU Amiga Magazine, 37-39 Millharbour, Isle of Dogs, London E14 9TZ or preferably e-mail: q+a@cu-amiga.co.uk. We can accept letters or text files on floppy disk. Please do not send an SAE.

WE CANNOT RESPOND DIRECTLY TO QUERIES BY POST OR OVER THE PHONE OR E-MAIL, and cannot answer every Q&A we are sent. Sorry. We do appreciate that you may have a serious problem and until Amiga International re-open a UK office you may have no-where else to turn, but we get so many questions we simply don't have the time or resources to answer them all. We do our best to use letters in Q&A that answer most common problems, so even if your own question is not answered you may find an appropriate solution here.

it. The drive does not show up on the boot options menu.

2. What is the difference between EDO RAM and standard SIMM RAM? Will EDO RAM (32Mb) work with the VIPER MKII 40MHz 030 board (which I am about to purchase)?

3. Where can I get my hands on some of the old INFOCOM games such as BATTLETECH and the ZORK games?

4. In the February '98 issue in Backchat you printed a letter from a Gareth Murfin. I would just like to ask why he wanted to buy a copy of Gloom 3? He programmed the game!

Yours Hopefully,

P. Bilsborough, Blackburn.

1. Check the answer to Graham Mitchell (All that Jaz) for comments on RDprep over HD toolbox, the same holds for you. In your case however you will we using it with scsi.device and unit number 0. Once RDPrep has located the drive, use the partitioning option to set the partition size(s) to taste, give your partitions names and then select the "write RDB" option.

Your drive will now be recognised although it will still require formatting. You can use the standard shell formatting command for this, so open a shell and type format drive (partition name:) name (an alias if different).

2. The EDO is actually a type of SIMM. SIMM means single inline memory module and refers to anything of that basic form factor. EDO differs from the more NP type commonly used on the Amiga in the way the memory is paged from the various chips on the board. EDO addressing is more efficient and if used correctly can improve speed slightly. Although no commonly available accelerators are designed to use EDO, you can actually use EDO Simms as a direct replacement in pretty much every case.

Although we have not actually tried this in a Viper mark2 and you should ring the retailers to be sure, we would be surprised if there was a problem.

3. Try looking second hand or ring Alive Media Software who seem good at locating ageing games. Call them on: +44 (0)1623 467579.

4. Good question, I wondered that too. Maybe he just takes the notion of supporting Amiga software a bit further than most of us!

A to Z

Gasp, gorgeous John Kennedy's gets his gums round a gigantic gaggle of G's, goodness gracious!

G is for...

Gadget
Gadgets are the controls which the user can manipulate to pass information to programs. Simple push-button images are examples of gadgets, but so are scroll bars, rectangles with click-and-drag knobs and boxes into which you can enter text or numbers. The Amiga operating system creates and looks after the gadgets once the programmer has created the necessary data structures, and attached them to a suitable window.

Gaggia
The best peripheral you can get for programming. Not cheap, but makes the best espresso you are likely to taste.

Garnet
One of the sample fonts included with the Workbench. Not one of the best lookers.

Gb
The keymap file required to put various punctuation in the right place. If you can't get a pound sign, then you know the keymap file isn't being used properly. Workbench should ask you which keymap to use the very first time you use it, and this will add a line to the startsequence to ensure that every time you boot up, your keys are sorted.

Generic
A printer driver, designed to offer basic printing features on almost every printer. Useful as a last-resort only, as only very basic features are supported, and there is no graphics support.

Genlock
A piece of external hardware. Although it's possible to record the Amiga's video output onto video tape, it's not possible to mix the Amiga's output with output from another video source – such as a camcorder – without a genlock. The genlock alters the timing of the Amiga to match the second video signal, synchronising them together. Essential for adding subtitles, but remember that genlocks can only superimpose the Amiga's video on top of the live source, not the other way around.

Get
An AmigaDOS command used to retrieve the value of a local variable. Used in AmigaDOS scripts.

Getenv
An AmigaDOS command which is used to retrieve the value of an environmental variable. These are variables which are used by the operating system to store useful information – such as the version of Workbench and Kickstart currently in use.

Ghosting
When the operating system or a program wants to let the user know that a particular gadget is unavailable, they become "ghosted". Although they are still visible, they become greyish and inactive.

GIF
A file format used to store images with up to 256 colours. More common than it used to be, thanks to the World Wide Web, which uses GIF format extensively to store images alongside HTML files. Some people pronounce it "JIF" for some reason.

GPFax
One of the first and best programs for sending and receiving faxes on an Amiga, using a suitable modem.

GraphicDump
One of the AmigaDOS commands which time forgot. It's actually quite smart: enter this command at the Shell and after ten seconds the foremost screen is sent to the printer. The printer settings must be configured from the standard Preferences settings. Use arguments Tiny, Small, Medium or Large to control the size of the image.

Graphics memory
Also known as Chip Memory, this is memory which the Amiga shares between the CPU (the Motorola 68020 for example) and the Custom Chips. It stores graphics and sound data.

GUI
Graphical User Interface: the Workbench as opposed to the Shell. When you open a directory by clicking on an icon, you are using the GUI.

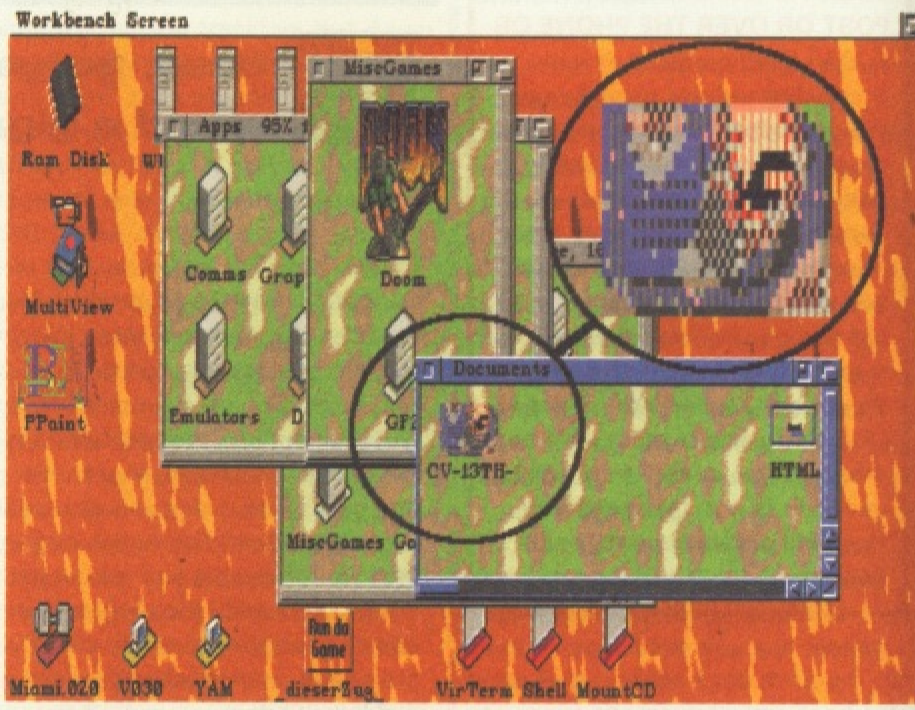
Guru
When something has gone seriously wrong, the operating system shuts down the system by performing a "guru". This is a small window display which contains some information about the task which has caused the problem. Often examining this Guru Meditation number can offer some clues about what has gone wrong.

For example, 00000002 means there has been a problem with the Data or Address bus, 00000005 means "division by zero", and 0000000B means "Line F emulator" which occurs when a system without an FPU executes an FPU only instruction.

Backchat

Isn't it time you had your say on all things Amiga? Now's your chance. Jot down your rants or e-mail them to us at backchat@cu-amiga.co.uk

Backchat
CU Amiga
37-39 Millharbour
Isle of Dogs
London E14 9TZ



▲ Jesus makes a surprise appearance on this Workbench – a dubious claim indeed!

Head rush

Many thanks for the innovative and bold step to release the entire TFX game on one CD and for encouraging DID to write it in the first place. From what I've read about the PC version of F-22 by DID, the Amiga one is better in that it has actual campaigns. The EF-2000 game by DID is said to be excellent as well.

Anyway, there are a few problems with the version I've got from your CD cover disk. In fact it has got more bugs than Starship Troopers. [goes on to list a whole page of bugs which we'll spare you]

Basically the game should have been play tested a lot more then fixed and released. I know you were all impatient to have TFX available for the Amiga but I believe it was rushed and the result is a poorer game than it should be.

Iain maynard, Manchester

Rushed you say? We first looked at TFX in the May '93 issue of CU Amiga and it was released on the October '97 issue! It would have been nice to have fixed up all the bugs but unfortunately we don't have that kind of the money available (at least not if you'd still expect to get it with the magazine and the rest of the CD for just £5.99. DID had shelved Amiga TFX indefinitely and this was the only way it was ever going to be released – warts and all, or not at all.

However, well above and beyond the call of duty, the Amiga version's main coder Charlie Wallace has since fixed up some of the problems and made new executables available from his own web site www.geocities.com/~charlie_x/. You can also find these on this month's CD.

Holy Workbench!

Halleluya!!! Praise be!!! What with all these stories of Allah's face in tomatoes, Indian hippo statues drinking milk and cleaning ladies finding the face of Jesus on a dish cloth... Well, I can top that! I believe that I have discovered the face of the greatest holy man of all... Yep, Father Christmas is in my Workbench. How's about that then? I've included a snapshot of my Workbench and the original icon (which alone could never resemble anything).

> **"I believe that I have discovered the face of the greatest holy man of all... Yep, Father Christmas is in my Workbench."**

To top that, the next day I received a call from my previous employers offering me my old job back (the icon was from my CV). What a Christmas present eh?

All I was doing was trying out a few new backdrops with icon transparency switched on.

Chris Andrews, via email

Watch out, it's Easter soon. If you get blood running out of the palms of your hands you might be onto something big.

That's bad defending

I am writing to say how appalled and disgusted I was with the game Championship Manager 2. I expected Champ Man 2 to be exciting, enjoyable and realistic. Instead I found myself so annoyed at the makers. This was meant to set the standards for all up and coming football management games. Instead it makes you wonder what the hell is going on.

I admit that the graphics are good, but the speed is so slow it's unreal. On the box it says 2Mb of RAM minimum. They got this wrong for a start. They should have made it at least 4Mb minimum, and with this you don't even get an HD install.

So they should sort themselves out and pass the 97-98 version, if it is coming out, onto an Amiga com-

Letter of the month

Right here's something good I did to help Amiga.

A shop in Rotherham which was selling Amiga stuff went bust. 9 weeks later a new owner took the shop over, but renamed the shop to PC Part X. This was bad news for the Amiga owners of South Yorkshire, until I walked in there....

I basically asked him for a job and told him exactly what I could offer him. Amiga support. I introduced him to Amiga and told him that there are still many owners of the systems out there. Amazingly he accepted and now I work there promoting Amigas!! And god do I have some tales to tell! I managed to convice someone that an Amiga was running a P133 when it was only and 020/25. I've pulled people away from buying PC's to buying an Amiga. If all people want is to word process, then the Amiga is a better option!! We do a good package: Second Hand Boxed A1200 £129.99; 60 Meg Internal (New) Hard Drive £59.99; Canon BJC-250 Printer, with Amiga Driver; £145.00 We stick it all together for £300.

People were going to buy PC's at £500, just to do some wordprocessing!! We also sell brand new Amiga add ons, such as RAM expansions, accelerators, Tower systems, Half Tower Systems etc, and if anyone needs any technical assistance, then all they need to do is come to our shop, where you'll find the shelves full of Amiga games (However unfortunately not the newest tiltles)

So there you go, thats a good start. Hopefully, (and its difficult with a tight boss) we'll be able to a build up the Amiga side of the shop, and be selling Brand New Amigas.

Andrew Fitzgerald, S Yorkshire

pany who knows what they are doing. After all, at least an Amiga company program for the Amiga. Even the back of the box says voted best PC game. What's this going to say to all Amiga owners out there?

PS: Could you please print my address as I would like to know what other Amiga owners have to say on this subject. Thank you.

Michael McFarlane
7 Dunston Close, Ermine East, Lincoln, Lincs, LN2 2DT.

We totally agree with you. In fact, we said pretty much the same thing in our review of the game. If you'd read that you could have saved yourself the cash, if not the disappointment. Fortunately most Amiga game developers are now well and truly tuned into the current Amiga users and don't rely on a snapshot of 1992 for their outlook on the scene.

Overpriced PowerUP?

I am a regular reader of your magazine and I've all your magazines from the CUCD1. I have a question about the PPC range of accelerators. Why are they so expensive? Do Amiga International think we are made of money? Obviously YES. I think Amiga International are trying to price the range of PPC accelerators out of most people's pockets In the long run that is bad for the Amiga community. Why are they so expensive? Well I will NOT buy one until they go down in price, but I need one NOW. How am I expected to write software when I can't get hold of the hardware? Well I hope you print this letter as I wish to air my views on the pricing of the PPC accelerators. Cheers for now,

Paul Morris, King's Lynn

Right then, let's get a few things straight here. The only PPC accelerators available at the moment are from phase 5, not Amiga International. Next, the first batch of Cyberstorm PPC cards are indeed expensive, but there's a reason: phase 5 have spent a lot of money developing the cards and now they need to recoup some of that in order to stay viable (to avoid going broke in other words). You'll see that's a common pattern with most technological developments. Once some of the costs have been made back from initial sales of the high end version, the product is then refined and more affordable variations follow. As we reported in last month's News section, the Blizzard (A1200) PPC cards are soon to be available at much lower prices, although these have crept up a little since then. You'll be able to get your hands on an entry level PPC Blizzard card for around £250, and about £350 for a very desirable model.

Reject PC developers

Watching various mags and other sources of info on the PC, would it not be fair to say that the majority of software houses are now writing for the PC are trying to keep to deadlines (knowing that if they don't hit them they won't get the game published)? Wouldn't they be far better off writing for the Amiga which does not have these same timelines and the user base is much more grateful for the work done?

Chris Jones, Sheffield

"Why would we want rejects from the PC game development world when we've got our own Amiga-specific developers knocking out games like Quake, Forgotten Forever, On Escapee and so on?"

That doesn't sound like a good idea. Why would we want rejects from the PC game development world when we've got our own Amiga-specific developers knocking out games like Quake, Forgotten Forever, On Escapee and so on? The Amiga user base isn't a dumping ground desperate for any scraps thrown its way.

Where's the CD?

I first would like to say that I really enjoy your magazine. I'd also like to enjoy your CDs, but of all the dealers within 50km, I can find nothing but the floppy disk versions.

I repeatedly ask (as your mag suggests), and they tell me that other customers ask for them too, and they'll check into it. Alas, they still don't ever seem to get the CD version in. If I give you their names, can you help?

Name not supplied

If you find it hard to get the magazine (in the UK) or the specific CD or disk edition, you can call Lorraine Russel at Frontline (the company which distributes CU Amiga) on 01733 555 161.

Otherwise you can ask your newsagent to specify the CD or disk edition from his wholesaler. Finally you could take out a subscription and get the magazine delivered to your door, usually about a week before it's in the shops.

Have some RAM

I thought your Workbench 2000 article was first class. I spent a happy couple of days over Christmas installing various patches and hacks (one at a time as suggested). I now have a modern looking Workbench and more efficient operating system. I had to be careful not to eat up too much memory, though.

Then I discovered HappyENV, the top rated program on Aminet. By installing this I recovered 250K of Fast RAM. So far it hasn't clashed with any of my other programs. I can heartily recommend this addition to the Workbench.

Dan Widdows, via email

Postcard from Holland

You people are blessed in the UK with a thriving Amiga population and (had) a bunch of excellent magazines, of which only one has sur-



▲ OnEscapee in all it's glory.

vived unfortunately [there is another one still going here actually - Ed]. In Holland the last (and only) magazine died a few months ago. Furthermore have I never seen any Amiga computers on the shelves of any computer store for the last five years, while your problem is more of a lack of sales persons knowledge.

I actually bought mine in a PC project at work in 1993 , where the employees could buy a computer financed by the company and you could pay it back without interest in nice monthly terms.

Of course we could choose between an IBM PC, an IBM PC and an IBM PC. I asked if I could please buy an Amiga and I could!!! But I had to buy it from the PC supplier and had no service or backup whatsoever since then. Don't worry, I am not trying to make any point, just saying there are worse places to be for an Amiga fan than England.

Another plus is buying in England with a credit card. By telephone or email, service is very good, polite staff on the phones and speedy and quick delivery. No hassle if something has to be sent back. I really never had any problem when dealing with an English company and I bought quite a few things since 1993.

No I am not an Anglofile (spend my holidays in France) but you people in the UK don't know what we poor sods across the water are missing....

Tom Dijksterhuis, via email

Fan-flippin-tastic

Fantastic, that's what it is, Fantastic! What with Petro Tyche°©wå°®whatever doing deals all over the place, PPC finally chosen as the next generation chip, Microsoft's legal probs ;-) Myst/Doom/Quake/etc... Fantastic :0) But....

Ha ha! fooled you! There are no buts!

Druid Poet, Druid Poet Enterprise

Insane moron

As one of those insane morons, upgrading my A4000 at every turn, I felt I needed to respond to Shane's comments (Controversy of the Month, Backchat last issue) on the state of the Amiga. Now we could get into those old arguments about the efficiencies of the Amiga OS and the pig-like hogging of system resources of Win95. Or the upgrade merry-go-round you get into when you are the proud owner of a PC.

"No I am not an Anglofile (I spend my holidays in France) but you people in the UK don't know what we poor sods across the water are missing.... "

These are a matter of opinion, and one is entitled to ones opinion. I, whose job entails supporting a great number of PCs running OS/2, Win95, and Win NT, would rather take the poke in the eye option than bring this kind of grief onto my desktop. I also defy Shane to purchase a 300MHz Pentium II, with the specs he mentions, for the price I paid for my Cyberstorm PPC (sure, maybe in 8 months to a year from now).

Shane, and a lot of people, really don't understand the PowerPC processor. The 603 and 604 are in the current product line and far from obsolete. Apple chooses to use the 603 in most of their low end product line, probably because of the cost (the 603 is cheaper). As far as speed goes, IBM says they will have a 1GHz version of the PPC out late this year, early next.

And where did so many get the idea that Apple is the only market right now for the PPC processor? If Apple were to drop off the face of the earth tomorrow, the PPC would still be here. Motorola sells the PPC and variants as microcontrollers, as well as a general purpose CPU. IBM puts the PPC into peripherals, their line of UNIX workstations, and variants of the PPC as processors for their minicomputers and mainframes. There are even PPCs, running in a large parallel array, as a supercomputer. Motorola and IBM both have bet the farm, as it were, on the success of the PPC. I think I'll trust these companies as opposed to Shane's opinion of their future.

To Shane, I would suggest visiting Motorola's website (www.mot.com) and IBM's (www.ibm.com) on your next websurfing excursion. Maybe then you could have not only an opinion, but an informed opinion.

Craig Nori, via email

All you need is love

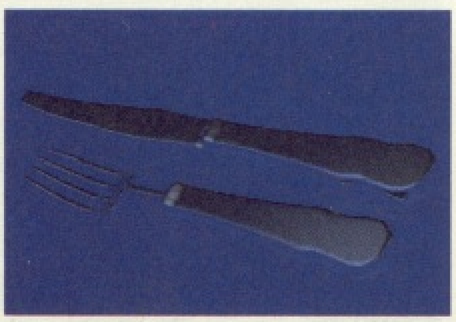
My friend and I have both fallen in love with Imagine 4.0 and have started to create a mixed collection of objects from pencils to Rune weapons using my Amiga and his PC. What we need to know is, are the objec ts of an acceptable quality to make a CD collection and how to go about advertising and distribution, copyright, who do we approach etc. Just a couple of other points:

1) When can we expect a review of Tornado 3D?

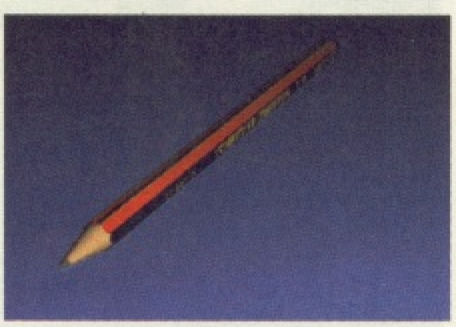
2) Please could you include any 060 optimisation patches, like the one for AB3D, on your CDs.

D Gascoyne & D Blackborough, no specified abode

Look out for a guide to publishing your own software very soon in CU Amiga. We'll have a review of Tornado 3D as soon as it's available. As for the objects, they look fine to us.









▲ Some utilitarian objects rendered quite usefully in Imagine 4.0. What do you think?

To the Point...

Larry's friend writes

I want to encourage everybody who reads CU Amiga to run out and buy Draw Studio 2.0, or to upgrade from the cover disk "Lite" version! Draw Studio is a sensational and easy-to-use piece of software that makes beautiful Web graphics and DTP logos positively *easy* to create. There's nothing else like it on the Amiga and I shudder to think that the Dean Brothers will cease development (what a loss that would be!) because of lack of sales. Please support this wonderful program, particularly if you own the Lite version.

Keep up the good work on this great magazine.

Steve Folberg, Austin, Texas

Are you sure that's not Steve Austin from Folberg, Texas?

Skint student ahoy!

Just a note of thanks for the Sword demo. Please try and come up with stuff on the disks that we skint unexpanded A1200 users can run. I'm a student you see, and can't afford to upgrade, so it's nice to have workable software on the disks from time to time. Cheers.

David Cook, via email

Work together

I would like to humbly suggest that the Amiga and the Apple Mac start joining forces, or Intel/Microsoft will blow both companies out of the water. Sun are currently developing a CPU which will run Java directly in hardware; surely this would be an ideal processor for the computer of the 21st Century.

Richard C. Lafferty, via email

There's no need to wait for that to happen – you can do it yourself with this month's Mac emulation feature and the software on the CD!

Whether an official arranged marriage of Amiga and Mac would work as well is another matter, but it's worth looking into anything to combat the current and potential future monopolies on personal computers.

If all else fails, there's always the custard pie approach...



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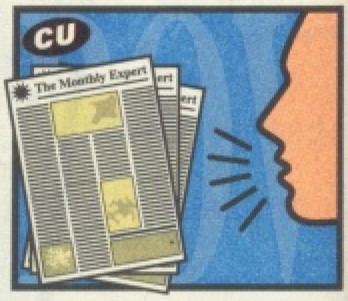
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Points of View



Time for some more opinions... please note that the views expressed here are not necessarily those of CU Amiga.

Drastic measures



Allow me if you will, to talk shop for a minute. New circulation figures have been released this month for virtually all magazines sold from the UK, and they show that CU Amiga is now the world's best selling Amiga magazine. Great. A big thanks to you for buying us. However, these figures, which cover the period from July to December of 1997, also bear out the inevitable decline in overall Amiga activity. Added together, two remaining UK-based Amiga magazines sold an average of 46,533 copies per month worldwide.

That's compared to 55,716 for six months previous to that. To get that into some perspective, the most popular Amiga magazines used to sell upwards of 150,000 copies each at their peak, and that was when there where many more competing for the same readership.

We all know the scene is shrinking, and most of us are aware that something drastic must happen for things to improve. However, I'm not sure those who really matter, Amiga Inc and Amiga International, have the same understanding. Amiga inc/Int seem to value the existing Amiga user base on the one hand, evidence of which is their licencing of the current Amiga technology to third parties.

That's fine in itself, and maybe that's the best they hope to gain from it, although I sincerely hope that's not the case. If they do plan to completely discard the current Amiga base, letting it die off completely, and focus on bigger projects some years down the line starting from scratch, that's their right. If they carry on as they are, that's what's going to happen if they intend it or not. Amiga clones sold to existing Amiga owners are never going to kick start a revival, and to be honest, I don't think even the broadest licencing attempts from Amiga will achieve that either.

"... the scene is shrinking, and most of us are aware that something drastic must happen for things to improve."

If Amiga think Amiga=AmigaOS, they may well take the line that Bill Gates doesn't make PCs but still dominates the PC market, so why should they get their hands dirty designing, manufacturing and selling hardware? I'll tell you why, because unless Amiga makes the first move, sets an example, standards and real systems running real software on real hardware, why should any other company bet their shirt on the success of what is currently seen by many as a failed/obsolete platform? If they don't make big moves soon, there won't be an Amiga scene from which to launch new projects; whether it's an entire set of hardware/software standards or merely an operating system. On behalf of the scene, I'm respectfully advising Amiga Inc and Amiga International to get their *arse* into gear. Yes, that's how we say it in London. An 'ass' is a donkey. ■

Tony Horgan is Editor of CU Amiga

Flying the flag



I'm not one of nature's flag wavers. I'll buy British, but only if there isn't something better on import. I believe in everything standing on merit and am fundamentally internationalist by nature.

However when it comes to the Amiga I think the UK needs a bit of talking up. Britain is the home of Power Computing, who are DCE's partners in producing the A5000 and A6000 Amiga clones. The Access, BoXeR and InsideOut, Amiga clones that bring some really exciting new designs to the Amiga line are from another UK company, Index information. The revolutionary Siamese system, not to mention the extension of that into project Alpha and the porting of Amiga OS to the DEC ALPHA platform? HiQ, another UK company. On the software front we can boast companies such as Digita, producers of the excellent Wordworth. How about Draw Studio from the Dean Brothers/LH publishing? Active software and the superb Netconnect package? Soundprobe from HiQ? I could go on.

How about games – the UK is the heart of the Amiga games scene, with companies like Vulcan, Sadeness, Islona, and Active being involved at least as publishers in the bulk of Amiga game releases. CD-ROMs? Epic Marketing and Weird Science have been central to Amiga CD-ROM development. Britain is also home to the world's two leading Amiga magazines.

"If AI want to make money selling OS 3.5 and so on, they are going to need the UK."

Then there is the all important factor of user base. If AI want to make money selling OS 3.5 and so on, they are going to need the UK. No one is quite sure whether the UK or Germany is the biggest market overall, but the evidence would point to the UK. All this being the case, why is there so little support?

With that size of user base, it would seem a priority to give the UK market enough faith in the platform to stick it out. Whilst US users have Amiga Inc. to reassure them and German users have Amiga Int., in the UK there isn't much sign of progress. With all those important companies it would seem a priority to be close to the UK action too, if only because someone in an office across the Atlantic doesn't necessarily know if the person on the other end of the phone is a time waster or someone with vitally important developments.

I think it's time the duality became a trinity and Amiga UK was formed. It wouldn't need to be much, but it would repay AI hugely: putting a lot of faith back into probably the Amiga's biggest market; giving a point of contact for all those UK firms; acting as a great bridge between the two Amigas. After all we get on better with Americans than Germans do, and better with Germans than Americans. So come on chaps, give the UK what we deserve! ■

Andrew Korn is Deputy Editor of CU Amiga

The strength of the Amiga

Is the era of alternative computer platform choice over? Windows 95 on Intel based computers seems to invade every part of our lives. Does this mean there are no markets left for the Amiga? Is this the finish of Amigakind as we know it?

Of course not! What a ridiculous idea!

Windows95 simply isn't a very good fit for a number of markets. Despite the economy of scale making many Intel-based computer add-ons cheaper, there are still many areas where there are only so many potential customers, and so the add-ons cost just as much or more than similar Amiga components. The current hardware architecture also suffers from various limitations imposed by the limited number of hardware interrupts, display card memory access and other memory access.

There's also the issue of useability and stability. Multitasking under Windows95 isn't as neatly and economically implemented as the Amiga. Random crashes are too frequent. Windows98, according to mainstream PC compatible magazines, isn't going to change much of this – nor will Windows98 even be that significant an upgrade for Windows, since adding Internet Explorer to the package was cancelled after Microsoft's loss against the US Department of Justice.

WindowsCE doesn't have enough power to grab control of markets that Windows95 is unsuited for. WindowsCE based palmtops have failed to sell well against competitors like the PalmPilot and the Psion.

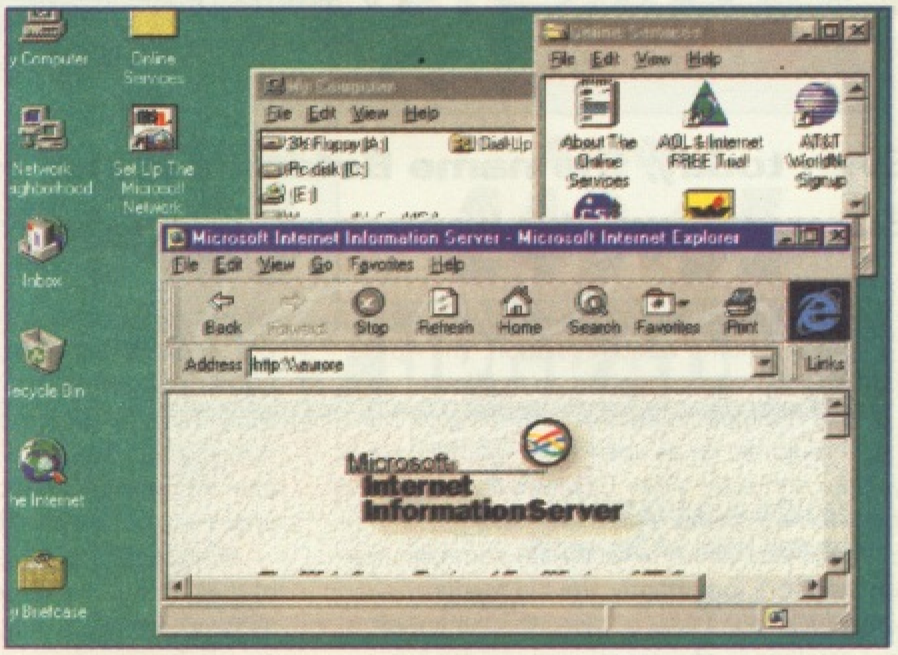
More significantly the platforms that are using WindowsCE also use a variety of custom processors and that the software for WindowsCE platforms has to be recompiled for each of these processors. Vendors used to marketing to the Windows platform are not comfortable with multiple processor support. Microsoft also has a history, as shown with WindowsNT, of quickly coming to favour one processor over another (Intel of course), and discontinuing versions of Windows for the other processors.

WindowsCE 2.0 is promising a smaller size – but it's doing this by simply stripping itself of basic features. Based on current reports, if you want WindowsCE 2.0 with all the same features that WindowsCE 1.0 had – 2.0 will be larger than 1.0 was! Many WindowsCE 2.0 machines are coming with 8Mb ROM to hold the OS alone!

So where does the Amiga fit in for the future?

The Amiga still owns the real desktop video market. Only people with deep pocketbooks can afford Windows based video solutions. Also as the recent releases of Myst, Doom, and the forthcoming Quake are showing, the Amiga can also keep up in the games market despite the old misgivings. So what new niches could the Amiga fit into? Where would the Amiga make a real difference?

"Multitasking under Windows95 isn't as neatly and economically implemented as the Amiga."



▲ Windows 95, it sucks... allegedly.

As has been suggested many times, an Amiga as a home Internet console is a perfect solution. Netscape will soon be available for the Amiga since the release of Netscape's source code is near, but most Amiga browsers are also very capable and they are a lot smaller! Marketing this against WebTV will be eased since WebTV lacks flexibility, speed, and prevents you from choosing your own Internet provider (which also limits its market). WebAmigas would be the go-anywhere, connect-to-anyone solution.

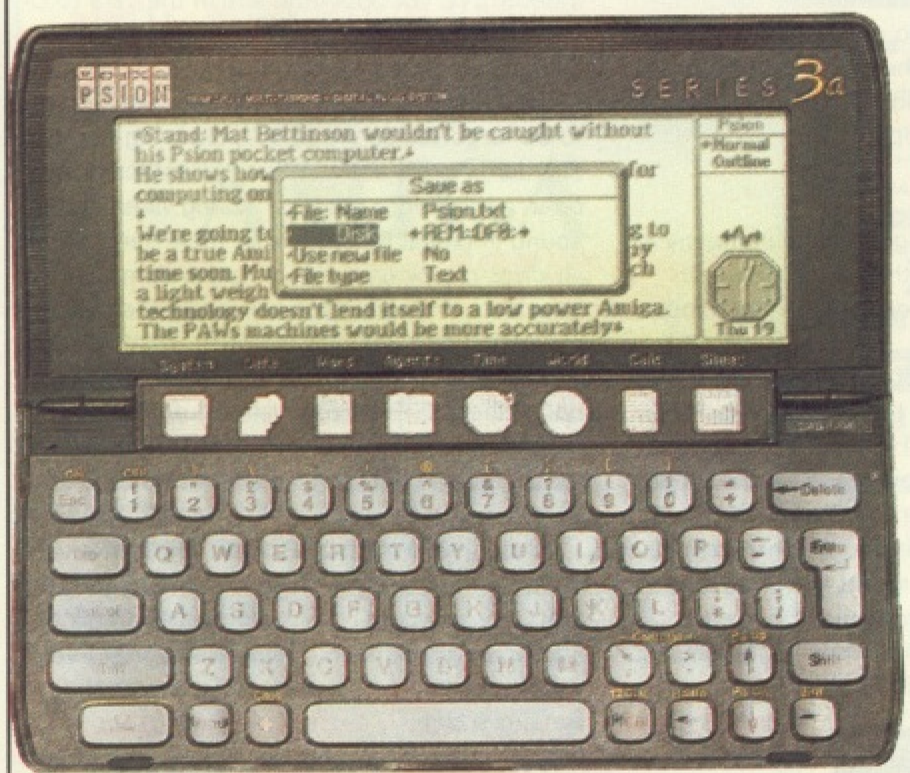
The pre-school educational software market is another ideal place for the Amiga. The cost of a complete, fast, Windows95 system is more than I want to pay for just my 4-year-old to use to play animated, educational, games on. Yet a stock Amiga 1200 can play full screen animations quite nicely though. In fact, the only thing that keeps a stock 1200 from being an ideal kid's computer is... no built-in bootable CD-ROM (if it's bootable, it's easier for the kids to just stick in the CD-ROM and play 'n' learn). Most of those kids games on the Windows platform should also be fairly easy to port – after all they're primarily animations and sound. Everything important is in their design.

An updated 1200-like Amiga would be perfect for both of these markets. Build in a CD-ROM. Make the floppy an option. Shrink the motherboard to allow room for these changes and for standard 3.5" IDE hard drives (the games have to store some information and caching the Internet pages is a must!).

Offer PCMCIA modems as options for the Internet connectivity. Cost-reduce the design and you'll have a price point that the Windows market will be hard pressed to match, since they'll need SVGA monitors or specialised video adaptors to use the TV's that the Amiga can use right out of the box.

These are just two ideas. There are many more areas the Amiga can make a difference in: schools, kiosks, and any place where the base cost of multimedia is too high when Windows/Intel solutions are offered. The Amiga has many strengths and a strong future. ■

Kermit Woodhall is the big cheese at Nova Design (of ImageFX fame)



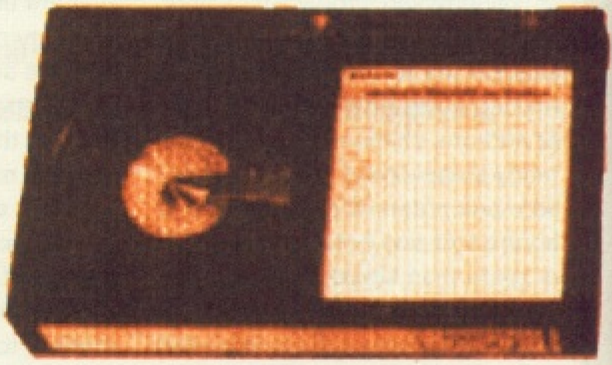
▲ Psion Palmtop, better than WindowsCE.

"WebAmigas would be the go-anywhere, connect-to-anyone solution."

TECHNO TRAGEDIES Betamax



Even today, the name Betamax is the subject of ridicule. But what exactly happened, and why did it fail?



▲ Sony lost the battle of VCR formats, despite superior technology

It was the 1970s, and the world was gearing up for a home video revolution. The Apollo Program was coming to an indifferent end, and the most important technological breakthrough as far as Joe Public was concerned was the domestic Video Cassette Recorder. The ability to record and replay television programmes was about to reach the domestic market, but more importantly, the big media companies saw a way of cheaply selling their past catalogues of material, and making huge sums of money. There was a lot at stake.

The Trinity

Three video formats were launched: V2000 from Philips, Betamax by Sony, and VHS from JVC. The Philips system had the unique – and quite pointless – feature of double-sided tapes, like music cassettes. It was European, it was unreliable and it didn't stand a chance. The big battle was between Betamax and VHS.

The ways in which Betamax differs from VHS are many, varied and extremely technical. A lot has to do with the recording head and the way in which the video signal is recorded on the magnetic tape. Compared to an ordinary music cassette tape, video tape has to pack in a lot more information. So much so, that the tape would have to move at a speed of five metres a second. Clearly this isn't practical: not only would the VCR have immensely fast moving parts, but the cassette tapes themselves would be huge (the size of suitcases) and take days to rewind and fast-forward.

The ingenious solution is to build the recording and playback heads into a small drum, and rotate the drum at high speed. As the relative scanning speed is very high, the tape can therefore be moved at a sedate 2cm a second. The final trick is to place the video head drum at an angle, and store the information in little diagonal stripes. This technique is called "helical scanning": for more details see http://www.philips-magnavox.com/product/pv331vcr.html.

Both Betamax and VHS systems use this scanning technique, although with slight differences. Betamax was based on Sony's professional U-matic-system, which sucked in a length of tape and wound it around the drum. It takes a second or two to get the tape into position, but once there it can remain until the tape is ejected.

By comparison, VHS tapes are dragged out of their cartridges and pushed into the drum: although initially slightly quicker, this operation causes more wear and also needs performing every time the tape function changes. As a result, VHS decks make more clunking sounds, and to avoid tape wear, cannot be left in Pause mode for more than a minute or two.

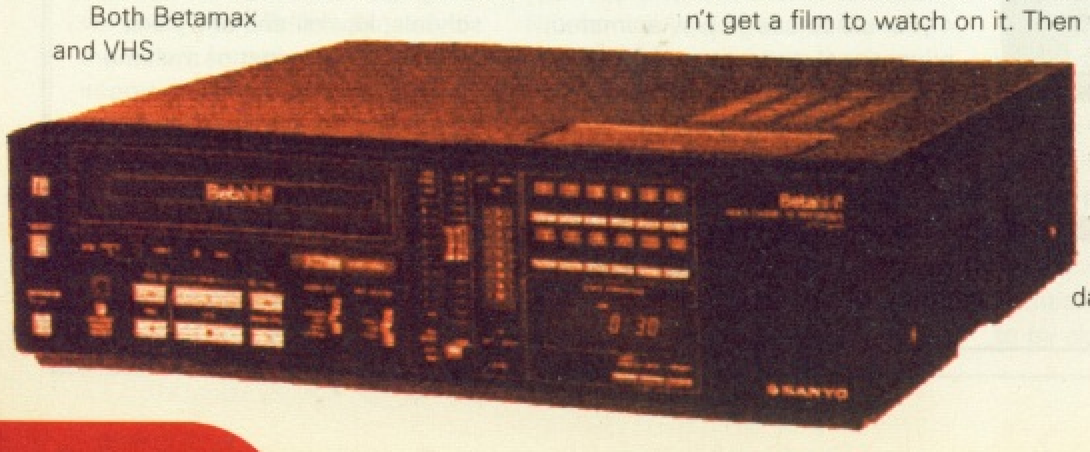
It was image quality which was the Betamax trump card, with a slightly faster tape speed and higher signal bandwidths making for clearer pictures. The urban legend is true: Betamax recordings are clearer than VHS recordings.

However, as we all know, technical superiority doesn't guarantee success. In the UK, Betamax and VHS were launched at the same time, and on paper, Betamax was the clear favourite. There was a problem though: the first VCRs were simply too expensive, and also downright unreliable. Few people could justify the high cost of buying, and so thousands upon thousands rented their VCRs from high street shops.

Sony, yet so far

Unluckily for Sony, the biggest rental company in the UK was associated with the VHS inventor JVC, which meant most people had their minds made up for them.

The VCR in the living room was a VHS, and so the most popular tapes in the new shop-corner video rental shops were VHS tapes. The companies making the money from rentals also had an interest in the VHS standard, and as most films were on VHS, more people bought or rented VHS systems. Round and round this went, and the end result was that you couldn't buy a Betamax VCR, and even if you could, you couldn't get a film to watch on it. Then video recordings, music videos especially, started to feature stereo sound. The original Betamax standard coped badly with a stereo upgrade, although it was improved somewhat with the Beta HiFi standard.



Again, it offered better results than stereo VHS, but once again, it made little difference. The "software" – the rental films – were now almost solely in VHS format, and so there was little reason to buy Betamax hardware. In 1998 Sony, inventors of Betamax, announced their first VHS format VCR, and Betamax died.

Digital age

Sony went on to invent the camcorder, and of course, used a Betamax derived format called Video8. JVC cut down the size of the VHS to C-VHS, but this time they didn't dominate the market as they would have hoped.

Of course, thankfully, the entire mess is about to be forgotten as we all go digital. Digital video standards exist, and the first camcorders have been available for months. Storing video and sound in digital format is a lot more sensible for all kinds of reasons, and of course computers have a much easier time converting the footage for editing and grabbing stills.

The digital format at last could draw a line under the VHS/Betamax wars – but it's always dangerous to say that history won't repeat itself: the squabbles over DVD could set it happening all over again...

There is plenty of support on the Internet for supporters of Betamax who simply cannot admit that their favourite format is dead. I strongly urge you to read their wails, rants and arguments as they make interesting reading. Start with the Betaphile club (http://condor.lpl.arizona.edu/~vance/betaphile.html) and try the Betalore site (http://www-leland.stanford.edu/~whitew/Beta/index.html) and Beta in the UK (http://www.geocities.com/CapeCanaveral/6263/index.html). ■

John Kennedy

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